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**BOYS AND GIRLS IN COMMERCIAL  
WORK**

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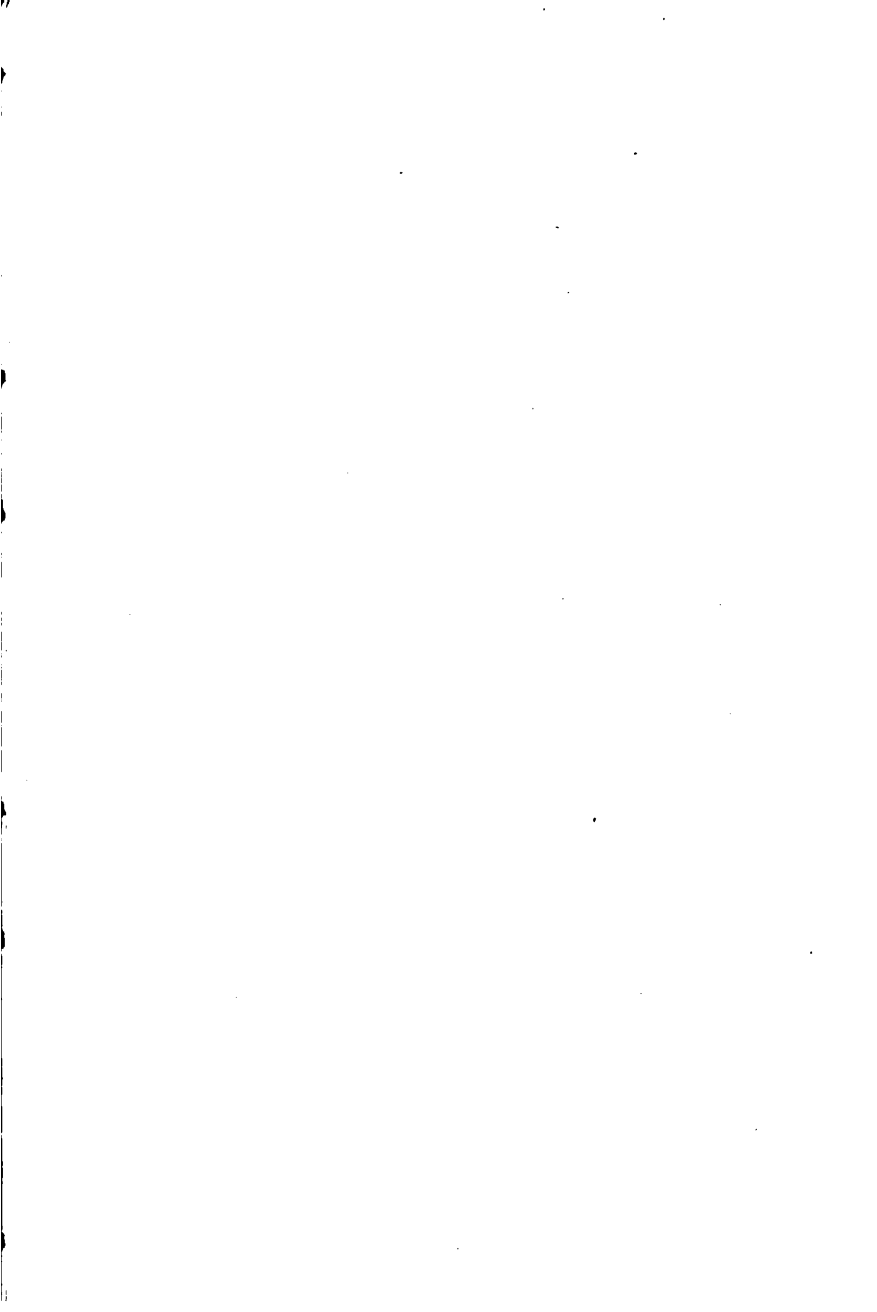
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High School of Commerce freshmen in upper picture and seniors in lower picture. A private business school would have sent these freshmen out as trained in eight months or less. The public high school keeps them until they are mature and responsible

**C CLEVELAND EDUCATION SURVEY**

**BOYS AND  
GIRLS IN COMMERCIAL  
WORK**

**BY  
BERTHA M. STEVENS**



**C. F.  
THE SURVEY COMMITTEE OF THE  
CLEVELAND FOUNDATION  
CLEVELAND · OHIO**

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## FOREWORD

This report on "Boys and Girls in Commercial Work" is one of the 25 sections of the report of the Educational Survey of Cleveland conducted by the Survey Committee of the Cleveland Foundation in 1915. Twenty-three of these sections will be published as separate monographs. In addition there will be a larger volume giving a summary of the findings and recommendations relating to the regular work of the public schools, and a second similar volume giving the summary of those sections relating to industrial education. Copies of all these publications may be obtained from the Cleveland Foundation. They may also be obtained from the Division of Education of the Russell Sage Foundation, New York City. A complete list will be found in the back of this volume, together with prices.



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# BOYS AND GIRLS IN COMMERCIAL WORK

## CHAPTER I

### DIFFERENT WORK FOR BOYS AND GIRLS

Any one who has read the story of "Hilda Lessways" knows that, 35 years ago, she was the subject of gossip and disapproval in her English town, for she was becoming a thing unheard of—a girl stenographer! She had asked a young lawyer what wage-earning work there was in the world that a girl could do. He told her, "You ought to go in for phonography—Pittman's shorthand, you know." "Oh! shorthand yes—I've heard of it," she said. "But does it lead to anything?" "I should say it did," he answered. "It leads to everything! It's the key to the future." The truth is now, in 1916, that shorthand has indeed been the key to that future which business opened to girls; but shorthand for boys has proved a key which as time goes on unlocks fewer and fewer of the doors they want to go through. And this is but one illustration of many differences in the commercial opportunities of boys and girls; differences that are fundamental and must affect the whole scheme of their training.

If we wish to generalize broadly about the work of boys and girls we can say with truth that the majority of boys begin as messengers or office boys and subsequently become clerks or do bookkeeping work. As men they remain in these latter positions or, in at least an equal number of cases, pass on into the productive or administrative end of business. The majority of girls, first and last, are stenographers or to a less extent, assistants in bookkeeping or clerical work. There are of course boy stenographers and girl clerks, and there are women in general administrative work; but that these are a minority this report has several ways of showing.

Boys' work may be expected to take on the characteristics of the business that employs them; girls' work remains in essentials unchanged even in totally changed surroundings. For example, a boy who is clerk in a wholesale house will have work very unlike that of the boy who is clerk in a bank; but girl stenographers in both businesses will have an experience that is practically the same.

Boys' work, within limits, is progressive; girls' work in its general type—with individual exceptions—is static. Boys as a rule cannot stay at the same kind of work and advance; girls as a rule stay at the same kind of work whether or not they advance. Boys in any position are expected to be qualifying themselves for the "job ahead," but for girls that is not the case. Boys may expect to make a readjustment with every step in advancement. Each new position brings them to a new situation and into a

new relation to the business. Girls receive salary advancement for increasingly responsible work, but any change in work is likely to be so gradual as to be almost imperceptible if they remain in the same place of employment. If they change to another place those who are stenographers have a slight readjustment to make in getting accustomed to new terms and to the peculiarities of the new persons who dictate to them. Bookkeeping assistants may encounter different systems, but their part of the work will be so directed and planned that it cannot be said to necessitate difficult adaptation on their part. The work of clerical assistants is so simple and so nearly mechanical that the question of adjustment does not enter. These girl workers do not find that change of position or firm brings them necessarily into a new relation to the business.

Even moderate success is denied to a boy if he has not adaptability and the capacity to grasp business ideas and methods; but a comparatively high degree of success could be attained by a girl who possessed neither of these qualifications. A boy, however, who has no specific training which he can apply directly and definitely in work would be far more likely to obtain a good opening and promotion than a girl without it would be.

The range of a boy's possible future in commercial occupations is as wide as the field of business. He cannot at first be trained specifically as a girl can be because he does not know what business will do with him or what he wants to do with business.

The girl's choice is limited by custom. She can prepare herself definitely for stenography, bookkeeping, or machine operating and be sure that she is preparing for just the opportunity—and the whole opportunity—that business offers to her. Her very limitation of opportunity makes preliminary choice and training definitely possible things.

The difference between boys' work and girls' begins at the beginning. Boys are given the larger

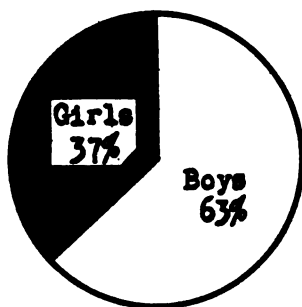


Diagram 1.—Boys and girls under 18 years of age in office work in Cleveland. Data from report of Ohio Industrial Commission, 1915

share of the positions which the youngest workers can fill. Diagram 1 illustrates this and the figures of the United States Census for 1910 clearly corroborate it. Boys are taken for such work and taken younger than girls, not merely because the law permits them to go to work at an earlier age, but also because business itself intends to round out their training. Girls, on the contrary, are expected to

enter completely trained for definite positions, and this fact alone would in most cases compel them to be older. Furthermore, because boys in first positions are looked upon as potential clerks, miscellaneous jobs about the office have, for them, a two-fold value. They give the employer a chance to weed out unpromising material; and they give boys an opportunity to find themselves and to gather ideas about the business and its methods which they may be able to make use of in later adjustments.

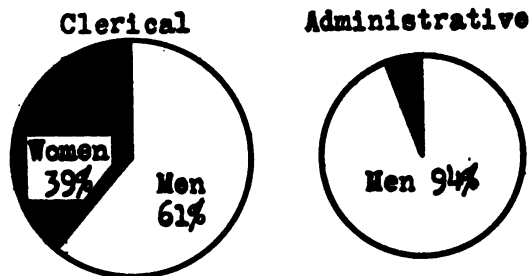


Diagram 2.—Men and women 18 years of age and over in clerical and administrative work in offices in Cleveland. U. S. Census, 1910

A comparison of the opportunities held out to each sex is shown in several ways in diagrams and tables. Diagram 2 shows that girls' training, if it is to meet the present situation, must prepare for a future in specialized clerical work; boys' future must apparently be thought of as in both the clerical and administrative fields. The term "clerical" as here used covers bookkeepers, cashiers, and accountants,

stenographers and typists, clerks, and a miscellaneous group of younger workers, such as messengers, office boys, etc. "Administrative" covers proprietors, officials, managers, supervisors and agents, but it does not include salespeople.

It is far from the intention of this report to overlook or to discredit the advances which women in this day are making toward a responsible part in business. And, while the present practical training of the mass of girls for commercial work must be based upon the kind of positions the mass of women now hold, there is no ground for interpreting such a program of training as an attempt to limit the opportunities of women. The limitation is, by custom, already set. It is, largely, the part of women themselves to surpass it, if the wider field is the thing they really desire. It is known that women are demonstrating, in many individual instances, their capacity to step beyond the bounds of clerical occupations; and there is evidence, in the trend of the figures of the United States Census, that women in the future will have an increasing share in creative and administrative work. Diagram 3 shows that in the 10 year period between 1900 and 1910 the proportion of Cleveland women in administrative positions in office work increased more than one-half.

The total number of persons in clerical work in Cleveland—men and women, boys and girls—is, according to the United States Census, approximately 22,000. Diagram 4 shows the distribution of these workers on the basis of occupation. Clerks make up

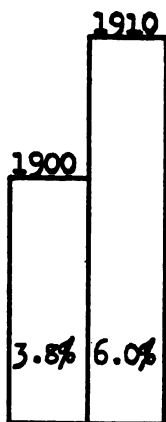


Diagram 3.—Increase in the percentage of women in administrative positions in office work in Cleveland from 1900 to 1910. U. S. Census

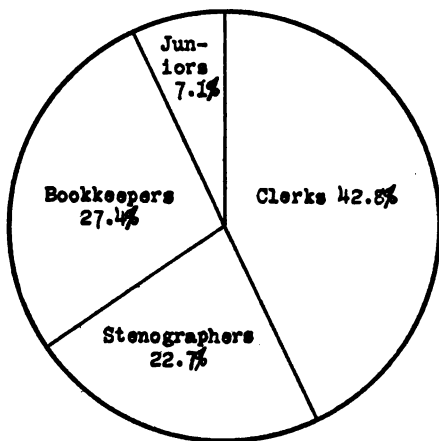


Diagram 4.—Distribution of clerical workers in Cleveland according to positions. U. S. Census, 1910

by far the largest number. Stenographers and the bookkeeping group are about equal, but the sum of these is not much greater than the number of the clerks alone. The junior workers, including messengers, office boys, etc., are, as may be expected, a tiny minority.

The distribution of the various kinds of clerical workers, on the basis of sex, is illustrated by Diagram 5. It will be noted that, of the men, it is the clerks that make up by far the largest portion. Among the women, it is the stenographers. The numbers of men stenographers and women clerks are correspondingly few. In the bookkeeping groups the proportions of men and women are most nearly alike; and, for both men and women, these groups are the second largest. Later in this chapter reference is made to a difference in the kinds of bookkeeping work which men and women commonly do. The larger proportion of boys among the youngest workers has already been explained.

Two tables have been prepared showing again, for both sexes, the contrast in the number and kinds of positions they hold. The table for men and boys is a classification of 2,306 clerical and administrative positions; for women and girls, 2,816. The information had to be obtained from differing sources. The positions for men and boys are those held by 1,000 applicants for office work at the Employment Bureau of the Cleveland Young Men's Christian Association, 1912-1915.

The records of this Bureau are kept with great

care and completeness and they have proved a valuable source of information about work, wages, and training. A private employment bureau not

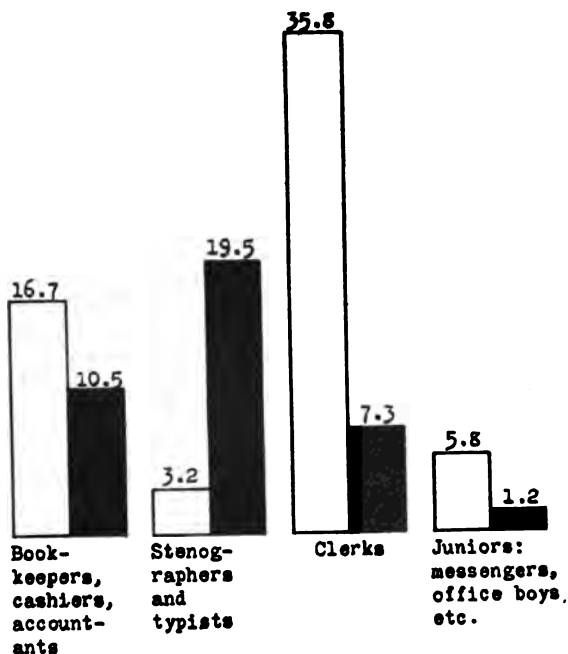


Diagram 5.—Percentage distribution of men and women in office work in Cleveland. Columns in outline represent men and boys; those in black, women and girls. U. S. Census, 1910

run for profit is sometimes open to the charge that its patronage consists largely of unfortunates and incapables, and that it represents a type of worker

lower than the average; but there are several reasons why this may not be true of the bureau of the Young Men's Christian Association in so far as the clerical workers are concerned. In the first place, all applicants must be members of the Association, and this presupposes the ability to pay a minimum membership fee of \$5.00. In the second place, the Bureau, according to its director, is used by men who habitually come to the Association to use its reading or social rooms or to attend lectures or athletic or educational classes, and who probably would not be seeking the aid of the employment bureau if it were less obvious and convenient. An examination of the records shows that six per cent are those of persons who have been or are enrolled in association educational classes. Further study gives information in regard to their ages at registration, their years of experience in office work, and their training and education, as set forth in Tables 1, 2, and 3.

TABLE 1.—AGE AT REGISTRATION OF 1,000 APPLICANTS AT  
Y. M. C. A. BUREAU

Under 18 years.....	81
18 to 25 years.....	696
25 to 35 years.....	198
Over 35 years.....	25

TABLE 2.—YEARS OF EXPERIENCE REPRESENTED IN 2,306  
POSITIONS HELD

Less than 2 years.....	762 positions
2 to 5 years.....	647 "
5 to 10 years.....	276 "
10 years and over.....	99 "
Information not ascertained.....	522 "

**TABLE 3.—EDUCATION AND TRAINING OF 1,000 APPLICANTS  
AT Y. M. C. A. BUREAU**

	Per cent
Grade education only.....	29.7
High school education only.....	36.1
College education only.....	4.3
Grade education and business training.....	10.5
High school education and business training.....	15.5
College education and business training.....	1.9
Education and training not ascertained.....	2.0

That this group typifies the average, and that the number of positions recorded, 2,306, is large enough to show different kinds of clerical work in representative proportions may probably be assumed. We consider, however, that the proportions in which officials, managers, supervisors, and the workers called "special" appear in our table cannot be representative, because it is not to be expected that men of this type will as a rule look to any employment bureau for aid in finding positions.

The State City Bureau for Girls and Women keeps records for its girls under 21 years of age, as valuable in the details they cover as those of the Young Men's Christian Association. But these records have not been used in comparison because only the younger workers could then have been represented. Instead a tabulation is offered showing all the positions, 2,816, held by girls and women in 133 establishments, representing 33 kinds of business. The classification of the tabulation has the advantage of showing in unquestionably true proportions the number of workers in all the various positions; for no figures were set down for any establishment unless the record

TABLE 4.—2,306 POSITIONS HELD BY 1,000 MEN AND BOYS

<b>OFFICIALS, MANAGERS, SUPERVISORS</b>		
Executives.....	40	
Department managers, agents.....	30	
Credit men.....	16	
Secretaries, treasurers, assistant secretaries.....	11	
Advertising men.....	5	
Supervisors.....	5	
Efficiency engineers.....	2	109
<b>SPECIAL</b>		
Salesmen, solicitors.....	139	
Distributors, demonstrators, canvassers, collectors.....	84	
Inspectors.....	12	
Storekeepers.....	4	
Buyers.....	2	
Estimator.....	1	242
<b>BOOKKEEPERS, ETC.</b>		
Bookkeepers, assistants.....	151	
Cashiers.....	37	
Paymasters, assistants.....	14	
Accountants, assistants.....	10	
Statistical workers.....	5	
Auditors, assistants.....	4	
Tellers.....	2	223
<b>STENOGRAPHERS</b>		
Stenographers.....	174	
Private secretaries.....	3	177
<b>CLERKS</b>		
Shipping.....	85	
Cost production.....	63	
Receiving, stock.....	59	
Sales order.....	48	
Time.....	47	
Record entry.....	20	
Mail.....	15	
Bill.....	12	
Railway.....	12	
Claim.....	7	
File, index.....	7	
Inventory.....	7	
Invoice.....	6	
Scale.....	4	
Pricing.....	3	
Routing.....	2	
Voucher.....	2	
Unspecified.....	927	1,326
<b>MACHINE WORKERS</b>		
Billers.....	13	
Multigraph operators.....	3	
Typists.....	3	19
<b>GENERAL CLERICAL WORKERS</b>		
Office boys, messengers.....	166	
Checkers and general office workers.....	44	210
<b>TOTAL.....</b>		<b>2,306</b>

TABLE 5.—2,816 POSITIONS HELD BY WOMEN AND GIRLS

<b>OFFICIALS, MANAGERS, SUPERVISORS</b>			
Supervisors.....	23		
Executives.....	14		
Department managers.....	13		
Secretaries and treasurers, assistant treasurers.....	4	54	
<b>SPECIAL</b>			
Copywriters, proofreaders.....	14		
Research worker.....	1	15	
<b>BOOKKEEPERS, ETC.</b>			
Bookkeeping and cashier assistants.....	324		
Auditing assistants.....	196		
Statistical workers.....	35		
Bookkeepers.....	7		
Auditors.....	2		
Cashiers.....	2	566	
<b>STENOGRAPHERS</b>			
Stenographers.....	948		
Stenographers and billers.....	20		
Private secretaries.....	19		
Stenographers and dictating machine operators.....	4		
Managers, stenography bureau.....	2		
Stenographer and translator.....	1		
Stenographer and bookkeeper.....	1	995	
<b>CLERKS</b>			
Credit.....	18		
Information.....	6		
Claim.....	4		
Record.....	3		
Insurance.....	2		
Employment.....	1		
File.....	1		
Mail.....	1		
Order.....	1		
Stock.....	1	38	
<b>MACHINE WORKERS</b>			
Typists.....	399		
Billers.....	130		
Tabulating machine operators.....	32		
Comptometer operators.....	28		
Multigraph operators.....	19		
Billing and comptometer operators.....	18		
Machine operators, not requiring training.....	16	642	
<b>GENERAL CLERICAL WORKERS</b>			
Filing and general clerical.....	155		
Records, entering, cataloging.....	132		
Checking, counting, sorting.....	127		
Long hand writing.....	71		
Information desk, telephone.....	21	506	
<b>TOTAL.....</b>		<b>2,816</b>	

of work and workers for that establishment was complete. It is reasonable to believe that some comparison may be made of the kinds of positions listed in the two tables and of the total numbers included.

Diagram 6 shows in graphic form the distribution

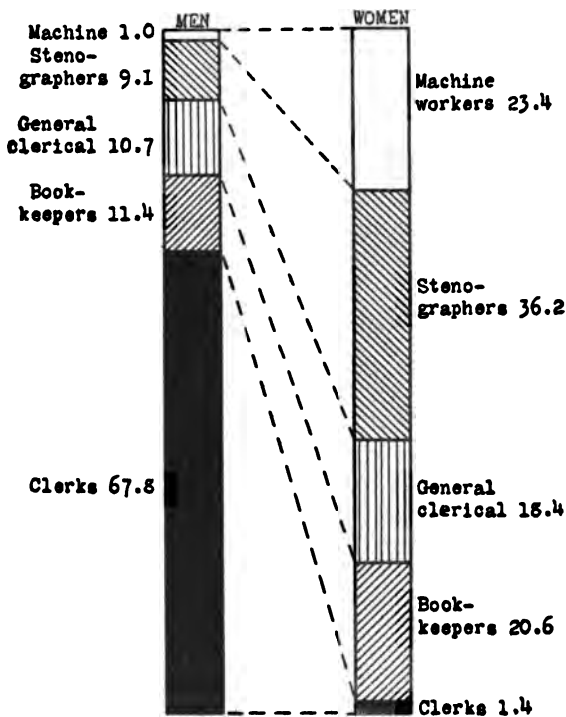


Diagram 6.—Percentage distribution of non-administrative positions in office work held by men and women in Cleveland, 1912-15. 1,955 positions for men and 2,747 for women

of the non-administrative positions. This diagram presents in more detail the same kinds of facts that have already been brought out in Diagram 5. Excluding for both men and women the workers in administrative positions, we have left those doing general office work of a clerical nature. Among the men and boys these positions number 1,955 as compared with 2,747 positions for the women and girls. Clerks make up the largest groups of men, and machine workers the smallest; stenographers make up the largest group of women, and clerks the smallest. The diagram shows that among each 100 men, 68 are clerks, while among each 100 women, only one is a clerk. On the other hand, among each 100 men, only one is a machine operator, while of each 100 women, 23 are machine operators.

The United States Census reports show that in the 10-year period from 1900 to 1910 the proportion of women increased in each of the three important groups of clerical workers in Cleveland. The most notable change took place among the bookkeepers. Among the stenographers and clerks there were slight increases. These facts are illustrated in Diagram 7.

The work of boys and girls, men and women, has sometimes in preceding paragraphs been referred to by the same or similar names, when in practice it may represent different things. The foundation for observations that follow will be found in Chapters III to X inclusive.

The usual commercial course gives impartially to girls and boys two traditional "subjects" which

they are supposed to apply in wage earning, whatever part of the wage-earning field they may enter. These are stenography and bookkeeping. In a later chapter evidence is brought out to show that these

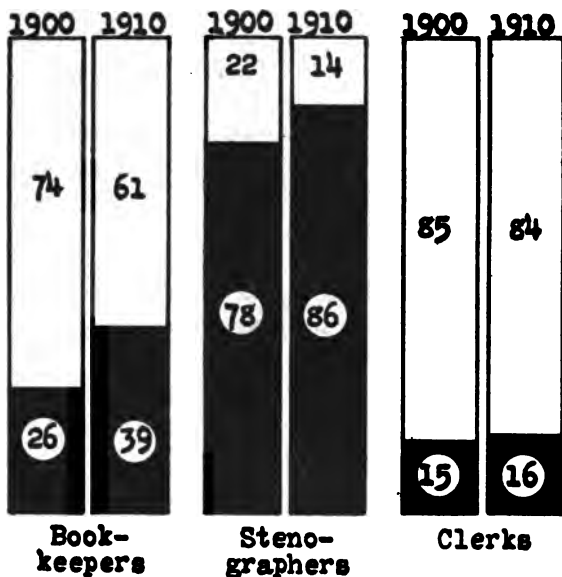


Diagram 7.—Increase in the proportion of women in clerical positions in Cleveland from 1900 to 1910. The portions in black represent women and those in outline represent men

are rarely found in combination except in small offices; but our present purpose is to point out that they are not caps which fit boys and girls alike. Numerical differences have already been shown.

Of the men and boys who are stenographers the majority are of two kinds: (1) those who use stenography incidentally in connection with their other and more important work as clerks, and (2) those for whom stenography is but a stepping-stone to another kind of position. The only firms which make a practice of offering ordinary stenographic positions to boys are those which restrict themselves to male employees for every kind of work. These may be firms that have had, traditionally, only men and that think the introduction of a girl into the office would entail certain restrictions in their working habits. To be concrete, cigars would go out and coats would go on. Or, they carry on their office work in coal and lumber yards, on docks, or in other places deemed uncomfortable surroundings for girls.

Independent stenographic work of various kinds is of course open to the sexes alike. In Cleveland there are a few women in court stenography. The 10 public stenographers' offices were found upon inquiry to include two men and 10 women. No figures regarding convention reporters have been obtainable. In the positions of the bookkeeping group also there is some sex difference. The accountants, bookkeepers, cashiers, paymasters, and other persons of responsibility are, in large offices where both sexes work together, much more likely to be men than women; the assistants who work with these may be of either sex, but girls and women are likely to make up

the greater portion. Of the small office this is less generally true.

Boys who do machine operating are usually clerks whose machine work, as in the case of stenography, is merely an adjunct to other work; with girls machine operating is either the whole of the position or the most important part of it.

A distinction is to be made between the clerkship which boys for the most part hold and the general clerical work which girls do. The essential difference is that boys' work is unified and is a definite, separate, responsible part of the business, usually in line for promotion to some other clerkship; the girls' is a miscellany of more or less unrelated jobs and is not a preparation for specific promotion.

### SUMMARY

The following conclusions are reached through a comparative study of boys' work and girls':

#### For Boys

1. Boys as a rule begin work younger than girls; they are used as office, errand, and messenger boys.
2. Boys are expected to show their calibre in these first positions and, if promoted, to apply the general information their experience has brought.
3. Boys are expected to follow a more or less limited line of promotion from one kind of work to another.

4. Boys' advancement depends upon ability to grasp ideas, adaptability, and other fundamental qualities more than it does upon specific training or information.

5. The majority of all the boys and young men in the clerical field are clerks; the second largest group is in occupations related to bookkeeping.

6. Comparatively few boys are employed as stenographers. Of those who use stenography the majority are likely to need it later rather than in the beginning of their careers.

7. Boys as a class are practically not employed to operate machines apart from other work.

8. More than half the men and boys in the commercial field in Cleveland are in general administrative rather than in specialized clerical occupations.

9. The wideness of boys' opportunities makes definite preliminary choice and specific training almost impossible; but it gives a reason for putting their specialized training into night continuation courses.

## For Girls

1. The only work girls can enter very young and without training or high school education gives small chance for any sort of advancement.

2. Girls are expected to enter with specialized training and to do the thing they have been taught to do.

3. Girls are expected to become more and more proficient in their chosen lines and to be proportionally compensated; but they are not expected to follow any line of promotion from one kind of position to another.

4. The majority of all the girls and women in the clerical field are stenographers; the next largest groups are bookkeeping assistants, machine operators, and general clerical workers.

5. A minority of girls become clerks or hold the head positions in bookkeeping lines.

6. Only one-eighth of the girls and women in the commercial field in Cleveland are in general administrative rather than in specialized clerical occupations.

7. The limitation of girls' opportunities makes definite preliminary choice and specific training possible; it gives less reason—but does not remove the reason—for specialized continuation training.

8. The future makes way for girls, though it does not invite them. The conclusion is not that women cannot share the high places but that as yet, except in a small proportion of cases, they have not done it. But what some have done others may do; and figures for the whole country show that progression into business is women's trend.

## CHAPTER II

### A GENERAL VIEW OF COMMERCIAL WORK

All commercial occupations may be roughly divided into two classes: those which have to do with administrative, merchandising, or productive work, and those which carry on the clerical routine which the others necessitate. The first class of occupations is designated here by the term "administrative work" and the second by "clerical work." A varying relation exists between the two which depends chiefly upon the kind of business represented. In some kinds clerical work is a stepping-stone by which the administrative work is reached; in others employment in clerical work sidetracks away from administrative work. In all of this discussion it must be remembered that we are using the term "administrative work" in the broad, inclusive sense that has been indicated above.

In a wholesale house clerical work is commonly the stepping-stone to administrative work. In retail establishments clerical work is apt to sidetrack away from administrative work. In a bank the administrative work, as the term is here used, largely consists of certain sorts of clerical work.

There is of course a future of promotion within the limits of clerical work without reference to its relation to administrative work. The practical aspect of it is, in most kinds of business, that the subordinate clerical positions far outnumber the chief ones. Promotion of any sort depends largely upon individual capacity; but this general distinction may be made between promotion in clerical work and in administrative work: in the clerical field it tends to be automatic, but limited; in administrative work it comes more often through a worker's initiative or individuality than through automatic progression, and it has no arbitrary limits.

Obviously one kind of person will be adapted to an administrative career; another to a clerical one. Even a beginner in wage-earning might be able to classify himself on a basis like this; yet it is not essential or in many cases even possible that his first positions recognize this choice. He needs fundamental experience in business methods whatever he is going to do; and for most administrative positions he needs maturity. He can achieve both by serving an apprenticeship in some form of clerical work. The important things for him in the early part of his career are to understand the distinction between the two classes of occupations; to sense the relation of the position he holds to the business as a whole; and to act intelligently in the matter of making a change.

A study of occupations for purposes of public training seeks to reduce them to points of identity or resemblance; a study of occupations for guidance

seeks to differentiate them. Vocational training cannot provide a limitless number of special courses, nor could the potential wage-earner know on what basis to choose among them. From practical necessity training asks of occupations, "How are they alike?" Guidance is free to cast a sweeping glance over the whole range of them and to ask, "How are they different?" The present chapter is concerned chiefly with the common factors in the clerical and administrative fields; succeeding chapters describe various businesses and occupations with a view to pointing both contrasts and likenesses.

The following is a tabulation of the types of work and workers found in practically all large office organizations:

TABLE 6.—TYPICAL WORK AND POSITIONS IN LARGE OFFICE ORGANIZATIONS

Administrative	Clerical
<b>Types of work</b> Financiering Organization and adminis- tration Merchandising and adver- tising Development and experi- mentation Efficiency engineering	<b>Types of work</b> Accounting and bookkeep- ing Credit work Handling of funds Correspondence Filing and records
<b>Workers</b> Officials Managers Salesmen and advertising men Other specialists Assistants to above	<b>Workers</b> Auditors Accountants Bookkeepers Credit men Cashiers Clerks Stenographers Machine operators Telephone operators Messengers Office boys

Some general observations follow relating to certain of the clerical positions which contain large numbers of employees and which are open to boys and girls at or near the beginning of wage-earning. An attempt is made to show to what extent these positions, called in various kinds of business by the same name, are fundamentally similar.

### BOOKKEEPING

The bookkeeping which modern business, except in the small establishment, demands of young workers is certainly not the journal and ledger bookkeeping of the commercial schools. A recent book upon the subject surprises us by saying

“What may the pupil reasonably expect as the result of his course in bookkeeping? . . . Obviously of course he should be prepared to start or continue a set of books previously begun, in an ordinary trading, commission, or manufacturing concern. He should be able to conduct the books of such an enterprise, whether organized as an individual, partnership, or a corporation. He should be able to devise the books incident to simple partnerships as well as to corporations and be familiar with the ordinary adjustments or results shown at the end of a fiscal period or due to dissolutions.”

If the writer means to suggest that the average pupil is to find in the early years of his wage-earning experience any chance to use directly the kind of

bookkeeping knowledge here described, we hasten to state that no such situation exists for us, locally. Nowhere, in our exploration of the Cleveland field of commercial work, except in the small unorganized office, was any person but a mature and even expert bookkeeper found doing this kind of bookkeeping work. The quality of adaptation to changing business methods which—the writer goes on to point out—results from such complete mastery of bookkeeping practice, seems even further removed from the needs of the young office worker. If the writer means that a knowledge of the whole aids in performance of a part, the point is worth discussion. Further reference to this subject is made in Chapter XIV relative to training.

A modern office organization may have in its bookkeeping department of 20 persons only one "bookkeeper." This person is responsible for the system and he supervises the keeping of records and the preparation of statements. A minority of his assistants will need to be able to distinguish debits from credits; the rest will be occupied in making simple entries or in posting, in verifying and checking, or in finding totals with the aid of machines. The bookkeeping systems employed show wide variation not only in different kinds of business but in different establishments in the same kind of business. Many firms are using a loose-leaf system; some use ledgers; and others have a system of record keeping which calls for neither of these devices. Bookkeeping work, especially in the positions held by girls, is

frequently combined with comptometer or adding machine work, with typing, billing, filing, or statistical work; but rarely, except in the small office, are bookkeeping and stenography—the Siamese Twins of traditional commercial training—found linked together. None of the recorded 2,306 positions held by men and boys of the Young Men's Christian Association Employment Bureau shows this combination; among 2,816 girls' positions, representing all the positions for girls in 133 varied establishments, only one such instance was found.

### STENOGRAPHY

Stenography is used throughout business chiefly in correspondence; to a less extent for report and statement work, for legal work, and for printer's copy. The stenographer in any business office more than other clerical workers is supposed to look after a variety of unorganized details including the use of office appliances, the filing of letters, and sometimes dealing with patrons or visitors in the absence of the employer. She is more important to the employer in his personal business relations than any other employee except in the case of those few employers who have private secretaries.

In the study of 995 stenographic positions held by girls, 43 combinations of stenography with other specific kinds of work are shown as follows:

Stenography and billing . . . . .	20
Stenography and general office work . . . . .	15
Stenography and dictating machine work . . . . .	4
Stenography and bookkeeping . . . . .	1
Stenography and research work . . . . .	1
Stenography and translating . . . . .	1
Stenography and statistical work . . . . .	1

### CLERKS' POSITIONS

The work of clerks is described in Chapter III, but one point, of general application, is to receive attention here. In the case of large corporations, which are by far the largest employers of clerks, an important kind of similarity exists. This is the similarity produced by standardization. The organization of the office work of the telegraph, telephone, and express companies, the railroads, and the occasional large wholesale company in Cleveland is a nearly exact duplication of that of other district or division offices controlled by these companies in other cities. The same is true of the Civil Service. Whatever effects standardization may have upon opportunity, it obviously makes for definiteness in regard to training requirements. All the positions are graded on the basis of experience and responsibility and a logical line of promotion from one to another has been worked out. Such grading can be made only from careful analysis of positions; and these analyses, which most companies require their department heads to prepare, would if available be of practical use to choosers of occupations and planners of courses of training.

## MACHINE WORK

Complete reports were obtained from 62 establishments relative to the use of office machines exclusive of typewriters. Tables 7, 8, and 9 show what kinds and what numbers of establishments are represented, in what proportion the different machines are used, and the kinds of machines found in different kinds of business.

**TABLE 7.—NUMBER OF ESTABLISHMENTS REPORTING ON USE OF MACHINES**

Manufacturing.....	23
Retail.....	13
Small offices.....	9
Transportation and public utilities.....	8
Wholesale.....	5
Banking.....	4

**TABLE 8.—PROPORTIONATE USE OF MACHINES**

Kind of machine	Percentage of establishments using it
Billor.....	48.1
Adding machine.....	46.2
Comptometer.....	30.5
Dictaphone.....	19.3
Multigraph and other duplicating machines.....	16.0
Mailing machines, including addressograph.....	12.1
Statistical machine.....	8.7
Bookkeeping machine.....	2.2

**TABLE 9.—MACHINES USED IN 62 BUSINESS ESTABLISHMENTS**

	Transportation	Retail	Wholesale	Manufacturing	Banking	Small offices
Billor	yes	yes	yes	yes	yes	yes
Adding machine	yes	yes	yes	yes	yes	yes
Comptometer	yes	yes	..	yes	yes	..
Dictaphone	yes	..	yes	yes	..	yes
Multigraph	..	yes	yes	yes	yes	yes
Mailing machine	yes	yes	..	yes	yes	yes
Statistical machine	yes	..	yes	yes	..	..
Bookkeeping machine	..	..	..	yes	yes	..



An advanced method of billing and bookkeeping in one operation used by the Halle Brothers Company



In addition to these machines, all offices, large and small, are equipped with various mechanical devices which cannot be classed as machines. The use of them naturally falls to the younger employees. Further reference to them is made in the chapter that deals with training.

### TELEPHONING AND TELEGRAPHY

Telephone work in the largest establishments necessitates a telephone exchange; and the person who takes charge of it is usually a trained telephone operator. Her responsibility to the firm does not go much beyond connecting the caller with the person who is called. The stenographer is likely to carry the most responsible part of telephone work, whether or not an exchange is maintained. The offices are few which put the burden of it upon very young workers, for it is generally realized that correctness, courtesy, and intelligence in telephoning and receiving messages constitute an important part of an employee's work: and those who are given it to do are acting as the firm's representatives in an important way.

An attempt has been made to find out for this publication the extent to which telegraphy is used in business in Cleveland. The United States Census report of 1910 shows the total number of operators to be 411. The traffic superintendent of one of the local telegraph companies divides these operators into the following groups: those in the employ of

the telegraph companies at the main offices and branch offices; those in the employ of business firms who operate pony wires which merely transmit messages to the main telegraph office; and those in the employ of business firms who operate their own private long distance wires. The number of the stations and the number of operators they include were estimated thus:

TABLE 10.—TELEGRAPH STATIONS AND OPERATORS

	Stations	Number of stations	Number of operators
Telegraph companies	Main offices	3	160
	Branch offices	17	33
Business firms	Pony wires	29	29
	Private wires	24	133

One hundred and nine private wire operators are in the employ of the railroads; the remaining 53 are divided among newspaper offices, manufacturing companies, one public utility company and one bonding company. Operators at main and branch offices are men and women in about equal numbers; operators in the employ of business firms are men. Inquiry at the office of the Superintendent of Telegraph of one of the largest railroads represented in Cleveland brought the information that the railroad is seeking to displace the telegraph with increased use of the telephone.

In the chapters that follow an attempt is made to cover important types of business organization. These are considered in six subjects: Transportation

and Public Utilities, The Retail Business, The Wholesale Business, Manufacturing, Banking, Civil Service and The Small Office. The discussion of them includes the relation of their clerical work to the business and, in addition, the following points:

The extent of the business in Cleveland

The organization of the business

A distinction between boys' work and girls'

An analysis of the work which the younger employees do

The theory and practice of advancement

Special requirements in training and personal qualifications.

## CHAPTER III

### TRANSPORTATION AND PUBLIC UTILITIES

The railroads, the steamship lines, the express companies, and the telegraph and telephone companies are grouped together here, not because of similarity in service to the public, but because of similarity of a fundamental sort in the work and opportunity offered to their clerical employees. No kind of clerical worker is omitted from the great host these businesses employ; but the kind of clerical worker that is distinctly theirs is the clerk. To a great extent the work of clerks is standardized. This situation must of course be expected from corporations and companies employing large numbers of persons in practically the same work in several cities; and it is a natural consequence of the growing demands of the Interstate Commerce and Public Utilities Commissions. The information the commissions require entails upon transportation and public utilities concerns a vast amount of somewhat similar clerical work in different kinds of business and identical work in the same kinds of business. A study of departmental organization and clerical work for steam railroads—the largest employers in

the transportation and public utilities group—will serve as an analysis of work, opportunity, and training which can be largely applied to the rest of the group.

Although many steamship companies dock their boats in Cleveland's harbor, only two have general offices here—one of these a passenger and one a freight line. A large number maintain local division offices, one office having 70 employees. Other division offices are small, having at the most four persons. There are approximately 300 clerical workers in Cleveland in steamship employ. The work of these persons is almost identical with that of railroad employees except that the positions are fewer in number and kind. The chief difference between the two is the seasonal nature of steamship work, the active period extending at the longest from April to December. Steamship officials claim that they keep about half their employees through the year, and that the other half, recruited anew each year, generally finds railroad employment in which steamship experience can be used.

Four express companies with a total of about 500 clerks have division or district offices in Cleveland. All the departments of both steamship and express work have counterparts in railroad organization. The telegraph and telephone companies employ about 500 persons in clerical work of various kinds. The two kinds of companies are organized alike in their four departments—auditing, plant, traffic, and

commercial. While their organization is not closely comparable to that of the railroad, their work is.

The following letter, written by a young man employed by a public utilities corporation in Cleveland, gives a general idea of corporation requirements, methods, and rewards. The letter is an application for employment in another kind of business.

Dear Sir:

\* \* \* \* \* I am 24 years of age and have been with the ——— Company for three years and two months acting in capacity of clerk in the traffic engineering department, as assistant traffic manager, and now as assistant chief clerk to the traffic superintendent.

My present salary is \$90 per month and the increases above this amount are not provided for locally but must be submitted to the department heads of the five companies in Chicago, Illinois. Except in rare cases, the increases are yearly after this maximum is reached, the advances being \$10 per year if any are granted. I feel that now is the time for me to get into some other line of work before I am too old to change or am in such a position that by changing I would have to sacrifice a considerable amount in salary. \* \* \* \* \*

A brief summary of my qualifications and I am through. I am a graduate of the Chillicothe High School, and following that had one year's college education at Rose Polytechnical Institute. \* \* \* \* \*

At present in the capacity of assistant chief clerk I have charge of the traffic superintendent's office force (12 employees) and in addition to my clerical experience, I have done special work for both the traffic superintendent and the general

manager in tabulating and compiling statistics in connection with the welfare work of the employees and especially in connection with the investigation made by Mr. ——— for the Public Utilities Commission of Ohio.

Very truly yours

A———— P————

## RAILROADS

Three railroads have general offices in Cleveland—the New York Central, the Nickel Plate, and the Wheeling and Lake Erie. The office of the New York Central constitutes the general office for its western lines only. Four railroads have division offices here. These are the Big Four, the Baltimore and Ohio, the Erie, and the Pennsylvania. All railroads are similar in their scheme of organization for the principal departments: the difference is found chiefly in the subdivisions in the departments. All conform in a general way to the following plan of organization:

President's office

Treasury and financial department

Department of audit and statistics for freight, passengers, and disbursements

Department of car service

Purchasing department

Traffic department—freight and passenger—industrial development

Department of engineering and construction

Department of operating and maintenance of way

Legal division

The army of Cleveland's railroad office employees numbers about 7,000 persons. For each 1,000 the distribution of positions will be approximately as given in Table 11. The distribution applies also to the positions of other great corporations. One finds in all about the same proportions; and the work the employees do, the compensation, the terms of employment, the opportunities, and the requirements in schooling and training are substantially similar.

TABLE 11.—DISTRIBUTION OF POSITIONS AMONG EACH 1,000  
RAILROAD OFFICE EMPLOYEES

Officials, managers, specialists, heads of departments	70
Clerks.....	832
Stenographers and typists.....	45
Machine operators.....	30
Telephone operators.....	5
Office and mail boys.....	8
Total.....	<hr/> 1,000

### OPPORTUNITIES FOR BOYS

Boys under 18 years of age are usually employed as office or mail boys and within a year they may expect to be promoted to the more important work of clerks. Older boys begin as clerks, assisting at first in a general way at filing, sorting, typing, or doing adding and tabulating machine work. Their promotion from this is to a desk where some special and responsible work is required of them.

A study of the records of the boys graduated from the Cleveland High School of Commerce in three consecutive classes showed that the majority of

those who entered stenographic positions went into the offices of railroads; but it showed that in most cases they used their stenography in connection with other work and are to be classed as clerks rather than as stenographers. The division operating office of one railroad uses boy stenographers in keeping individual records of the employees of the operating department. When promotion comes they will have less or no need for their stenographic training. Clerks in some other departments have frequent use for typing and occasional use for stenography; but this is in a later period rather than at the beginning of their career. The position of private secretary, which depends upon stenography, exists of course and is much to be desired. The private secretary goal is a future possibility for boys rather than girls, but a very uncertain one in any case because of the extreme scarcity of positions. It has been repeatedly stated by Cleveland railroad men that lack of stenography will not as a general rule keep a boy out of railroad employment and it will not prevent his promotion.

An unusually alert, intelligent youth of 22 who four years ago finished a night commercial course at the High School of Commerce and has since that time been employed in the division office of a Cleveland railroad, was asked what he would say about his present situation and prospects.

“My first salary,” he replied, “was \$53 a month—pretty good for some one without a day’s ex-

perience. I have been promoted every year, sometimes twice a year and my salary has gone up \$3 or \$4 every promotion. I am now getting \$74. I can get about three more promotions in the next two years. These will bring me up to \$80—and there I will stick! There will be about four other fellows doing different work but all on the same level and we will all be waiting for the chief clerk to die off. If he does, then somebody will jump to \$125—but any one of us has only one chance in five of being that person. I thought when I came into this office I was going to get into railroading—the real thing. I thought you could do it no matter where you caught on. Too bad I didn't know then—as I do now—how it's done.

“What is your idea of how it's done?” he was asked.

“Something like this. A boy going to high school can pick up railroad jobs during vacation for \$30 or \$40. Let him do this from the time he is 16 until he is through high school—not commercial—and, if he needs to, he can be saving up money for college. Then let him go to college and study everything he can about transportation and economics and all the things that bear on railroads, and every vacation let him keep on working in some railroad office. Then, when he is through college, he can come to this road and be put through a regular course of training that lasts three years. It is only open to college fellows and I guess only a limited number of those can get in. They put him on nearly every kind of work in the organization, a few days here, a few weeks there. They start him in with the dirty work in the yards, on the engines; he does everything on on the trains and in the stations; then they bring him into the freight office and so on right through.

After three years, if he has proved to be any good he is given a fairly good position somewhere where a man is needed, and from that starting point he will be in line for the best things on the road."

A talk with the division superintendent of this road confirmed the fact that a students' course for college men is given just as the employee outlined it, but the superintendent also made the observation that practically all the men at present in high positions on the road came up through subordinate positions and that notwithstanding the college student plan of developing executives it will always be the case that some man or men in each department may travel to the top, going from the division to the general office.

Our conclusions concerning the opportunities for boys based on the study of the records of over 200 persons in railroad employment are:

1. That railroad experience for a boy starting out in wage earning is distinctly valuable for training in system and business methods and for drill in accuracy; and he can apply these in any position in any business.

2. That salaries increase little by little keeping pace with frequent promotions until after five to 10 years a level of routine work at a fixed salary is reached.

This is the extent of the opportunity for the very large proportion of those who go into railroad work. The few who go beyond the usual limit may succeed to chief clerkships or executive positions in their department. They may become clerks, agents, or

managers in the railroad's offices in other cities; or they may go into other kinds of business for which their railroad experience has prepared them according to the department in which they have worked. It is possible for the exceptional man to become traffic manager for coal or lumber dealers or for manufacturing companies, or possibly to do auditing for almost any business.

### OPPORTUNITIES FOR GIRLS

Girls as a rule find stenography and comptometer operating their means of entrance and advancement. Those who begin work as clerks are few and they are never very young. The general statement can be made that girls are given clerkships not in line for regular promotion.

The stenographic field belongs chiefly to girls, except with those railroads which employ no girls at all. Stenographers are used in nearly all departments, the greater number being needed for correspondence work in the auditing and traffic departments. The telephone is used to some extent. A high degree of proficiency is expected in stenography and comptometer work, and it is not easily conceivable that a girl armed with less than a high school education can meet the requirements. Comptometer operators who are capable of doing statistical work are in line for the highest positions women hold.

Adding machines, card punching, and sorting

machines and others which, like these, require no training, find much use in railroad work. The operation of them falls usually to girls and women. It is probable that the majority of operators can perform their work with satisfaction even though they are not high school graduates; and it has been found difficult to get high school girls willing to do this purely mechanical work, but with the machine operating there is always clerical and statistical work to be done and the girls chosen to do it are usually those whose intelligence has been developed by a prolonged course of general education.

The railroad field as a whole is the boys' rather than the girls'. One railroad employs no girls in any positions. When employers were asked why they have so few girls their answer was, "Because we want to promote our employees into other positions." In stenographic, comptometer, and general clerical work women's opportunity in railroad offices compares favorably with that which other businesses offer.

### THE WORK OF CLERKS

We have already said that the typical employee of railroads and other transportation and public utilities corporations is the clerk; and we have shown in a previous chapter that clerks make up the largest group of men and boys in the clerical field. An analysis of clerks' work in railroad offices will represent fairly the essential features of clerks' work in any kind of business.

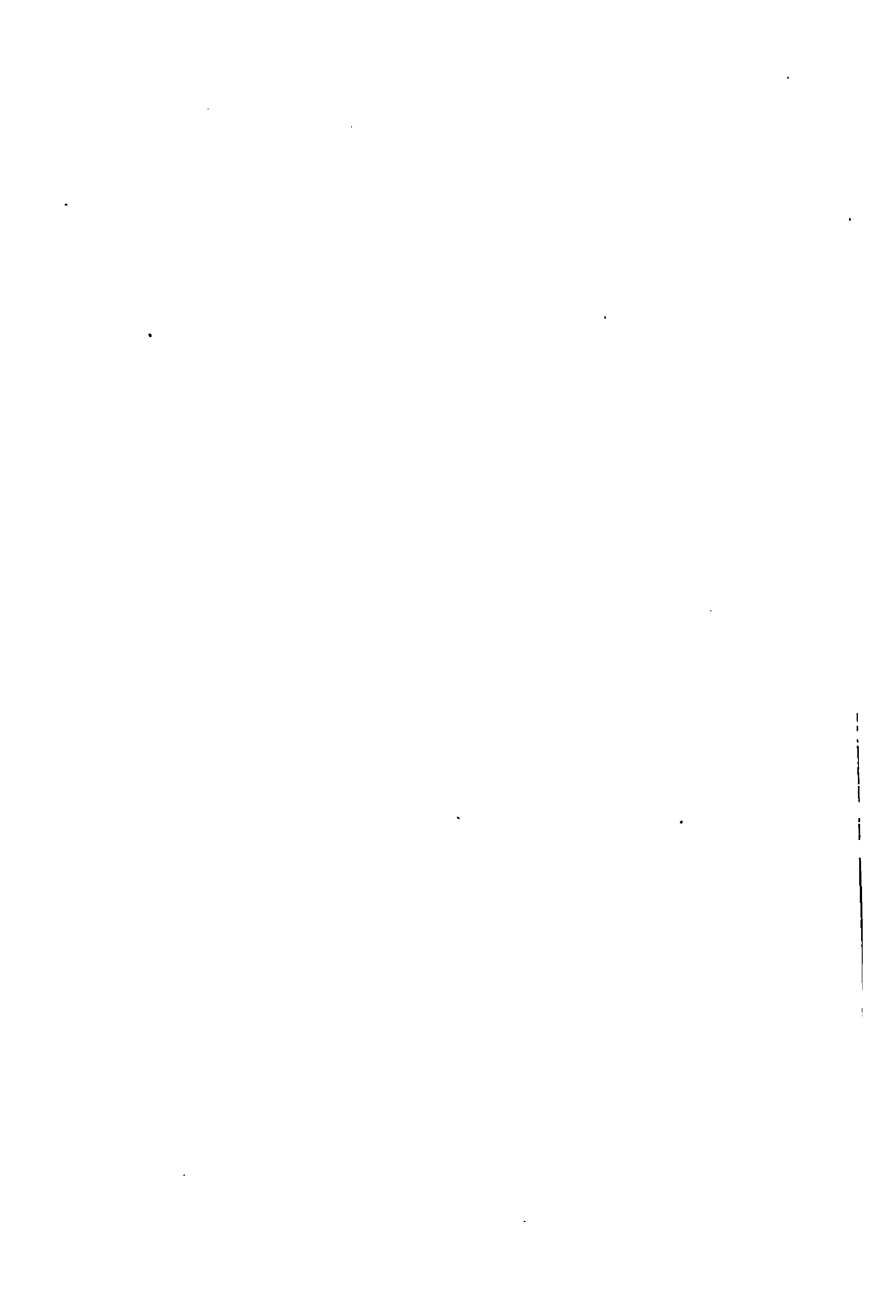
The largest groups of clerks are found, in general offices, in the freight and passenger traffic, purchasing, engineering, car service, treasury, and auditing departments. In all division offices some clerks are employed in connection with operating; and in the case of those division offices which include freight work large groups are found. Each department has its own distinctive purpose and set of details; but typical departmental organization and typical clerk positions will be represented if we discuss the passenger accounts and statistical divisions of the auditing department, the car service department, and the general freight department. Auditing and car service work illustrate that standardization of clerks' positions which appears to some extent in almost every department. General freight work offers an example of a department, which more than others, gives some outlet to workers who can contribute initiative, judgment, and analytical power. The only department that closely resembles it is the general passenger department.

#### AUDITING AND CAR SERVICE CLERKS

The passenger auditing department receives daily from each train conductor an envelope which contains tickets, coupons, mileage script, and passes; also a record of uncollected passes and of the cash fares he has received. These are the basis for all the department's work. The youngest workers are employed as mail or office boys at opening the en-



A group of boys and men employed as clerks in a manufacturing establishment. The sign on the post reads "Don't Quit. Don't Waver. Keep Plugging"



velopes and sorting the contents, at tying up packages for the store room and filing them, at sorting tickets and coupons, and as assistant clerks. There is a logical plan for advancement through a series of clerkships. The boys who are promoted are those who show tendency to assimilate ideas and information. They are expected to get from their subordinate work, incidentally, some familiarity with the geography of the road, with the names and locations of station agents, and with the character and the numbers of the trains. Four groups of clerks handle the department's responsible work. These are:

1. Interline clerks who figure how much is due the railroad from foreign railroads for carrying their passengers. The work involves the checking of foreign roads' reports, coupons collected by the train conductors and ticket agents' reports. It includes correspondence and the investigation and adjustment of foreign roads' claims.

2. Local clerks who check various reports for correctness and enter them. They check the collected tickets with the station agents' reports of tickets sold and with the records of tickets issued from the general office, making allowance for those returned unused. They also audit excess baggage accounts and the conductors' record of cash fare receipts. All reports of receipts are checked with the statements received from the banks with which they have been deposited.

3. Train earnings clerks who figure the weekly earnings of all trains on the road.

4. Statistical clerks who find out the monthly passenger earnings by divisions and by stations,

showing how much revenue comes from local and how much from interline traffic. They are aided in this work by comptometer operators.

The statistical departments of the largest railroad offices in Cleveland use a statistical machine which does away with much of the usual computing work. Where the machine is used boys and girls are needed as operators in its three processes of card punching, card sorting, and calculating. Card sorting is a nearly mechanical feeding of cards to a machine which does the sorting; but this work is usually combined with filing or other clerical work. The card punchers, in order to work efficiently, have to memorize a code of numbers which, for brevity, are used instead of names. The calculating machine operators merely copy off from the machine the amounts it computes from the cards fed to it; but they have to be careful to make no mistake. Usually it is their work, also, to check, with the machine's totals, those the comptometer operator has found. The head of the statistical department who plans the work is an expert of high importance; but only a few of the clerks who assist him are called upon for more than a moderate degree of experience, intelligence, and accuracy. Statistical workers in the railroad offices which do not use the statistical machine have a better opportunity for regular promotion to increasingly responsible work.

The long freight train made up of cars of many railroads brought together from far-separated parts

of the country reveals a game of mutual accommodation which the railroads play with each other, in order that each may give its patrons the most efficient freight service with the least cost to itself. The department which handles this matter of car borrowing is the car service or car accounting department. The fixed charge for using "foreign" cars and other rules governing the use and return of them are agreed upon by all railroads; and the system by which railroads keep track of their own cars and note what foreign cars are on their road is, for all, identically the same. Even the same printed forms obtained from a single printer are used. This means that clerks in the car service department are practically masters of a "trade" which applies to this department in any railroad in any city.

#### FREIGHT DEPARTMENT CLERKS

General freight work has to do with soliciting freight, fixing the rates which station agents may charge for freight, and investigating freight claims. Freight soliciting and the fixing and revising of rates are important kinds of work in which the younger employees have no share. Freight solicitors are really salesmen and need have no previous railroad experience. Rate clerks' positions are not infrequently filled by persons who have been freight agents at stations and have thus acquired familiarity with rates, classifications, and local information that will be useful in determining rates. Thus the boys of

the freight department have a lessened chance for advancement to the most important places. The work of the majority consists in sorting and filing printed matter by stations, and mailing it out to the station agents. Those whose accuracy and knowledge of correct English and punctuation can be relied upon are engaged in correcting printers' proof of published freight rates. Freight claims clerks investigate and settle claims of overcharge, loss, and damage. The younger employees in the order of their importance are:

1. Mail boys who open incoming mail and sort the claims according to the various desks which will deal with them.

2. Registration clerks who keep a register record of all complaints received, making entries from letters and from printed forms.

3. Voucher clerks who write vouchers for the amounts which the claims investigators have decided to allow the claimants.

4. Correspondence clerks who "match up" incoming letters with the claims they refer to, in order to file them together.

5. Tracer clerks who answer inquiries from claimants who want to know what is being done on their claims. The information is found by reference to a card catalog.

6. Record clerks who keep the card catalog of claims, noting on each claim's card what correspondence and other work of settlement has been carried on.

7. Statistical clerks, in some cases girls, who tabulate the number and kinds of claims settled by the department as a whole.

All of these positions help to give the worker the experience he needs for the more important work of investigation. Claim investigators are in groups, each group handling its special kind of claim, such as overcharge, loss, and damage. Positions which are concerned with spending the railroad's money as these are, must be considered responsible ones, and the amount of intelligence and judgment required is not small. Ability to dictate correspondence is also necessary. Practically all freight claims investigators have been advanced from lower positions in the freight claims department.

#### SUMMARY OF CLERKS' WORK

The railroad's work for most of its clerks calls for a considerable degree of accuracy and a good quality of intelligence. It does not demand, in most positions, personality or more than a moderate degree of initiative. Superficially judged, the clerk is a human automaton, expected to perform mechanically and unerringly the work that other minds have planned and organized. But there is continual opportunity to exercise a small degree of initiative and judgment throughout his work. The filled-in forms, for example, which come to him for entry or for checking may present slight irregularities or omissions which he must discover and comprehend to the extent of knowing how to take care of them or where to refer them for correction. All the work of clerks can be summarized in the following list of tasks set down in

order, those occurring most commonly being put first:

Checking—reports, one with another, totals and extensions

Entering—from forms and cards

Posting

Figuring—adding, multiplying, percentage

Counting, sorting

Filing

Mailing, opening mail, matching correspondence

Longhand writing—forms, vouchers

Correspondence—dictation, letter-planning

Claim investigation and adjustment

Statistical work

Proof reading

A clerk who has not the fundamental qualities of compactness, neatness, legibility and ease in writing by hand, and quickness and accuracy in figuring will not be able to fill satisfactorily even the lowest positions. As an adjunct to his work as clerk he may need to understand typing, comptometer operating, or to be familiar with the adding machine. Advancement through the operating department calls, in the offices of some railroads, for training in telegraphy. In a more limited number of clerks' positions use will be found for stenography or billing. A knowledge of the country's geography and of the requirements of the Interstate Commerce Commission will become necessary in the more advanced stages of a large proportion of positions. A high school education is desirable, but it is not made a condition of a

clerk's entrance into the work of any department. There are few departments, however, in which a worker will not feel, as he advances, the lack of a good foundation in English to help him in letter-planning, in correct and forceful expression, and in spelling and punctuation.

## CHAPTER IV

### THE RETAIL STORE

One's memory of Cleveland need not be more than eight years long to recall the time when the area of the down-town shopping district was half what it is now. Within those few years all the larger stores have moved into new and very much larger buildings or remodeled and enlarged old buildings almost beyond recognition; and several new stores have come into existence. Ten stores have now more than 100 employees; three have 1,000 or more. The maximum, 2,000, is found in only one store. The office force averages one-sixth of the total; and the number of the girls and women employed in office work is about four times the number of the boys and the men.

The retail business is carried on much more openly in the public view than most large businesses are. Any one can make a tour of the store to see the age and general quality of the selling and office force, and the number of girls and women as compared with the number of boys and men. He can watch them at work noting the degree of concentration or the deftness they require, and the demands made

upon them in the way of meeting and dealing with people. A few departments which have to do with the receipt, care, and delivery of stock are not thus visible. In any large store the work is divided approximately as follows:

Administration and management (private offices)

General office work, including credit department

Advertising department

Merchandising, including buying and selling, and stock-room work

Delivery

Auxiliary departments (circulating library, dry cleaning agency, dressmaking, etc.)

The first three departments of work are usually gathered together on an office floor; in some cases the buyers' offices are there also. These departments are distinct, each being conducted by its separate manager, but the office assistants for all are hired and supervised by the general office manager. In our discussion we have omitted selling positions and those others which lead to or are closely connected with selling, because the whole subject of salesmanship has been dealt with in another publication\* of this series. The only exception is our reference to the clerical assistants to buyers.

Clerical work for a department store having a total of 1,000 employees may be outlined as in Table 12.

\* Department Store Occupations.—O'Leary.

**TABLE 12.—DISTRIBUTION OF 185 CLERICAL WORKERS IN A  
STORE HAVING 1,000 EMPLOYEES**

<b>PRIVATE OFFICES (Members of the firm and department managers)</b>		
Statistical workers.....	4	
Stenographers.....	2	6
<b>THE GENERAL OFFICE DEPARTMENT</b>		
Bookkeeping		
Bookkeepers and assistants.....	20	
Auditing assistants.....	15	
Cashiers.....	10	
Billers.....	5	
Order clerks.....	5	
Pay roll clerks.....	5	
Comptometer operators.....	5	
Service (for all departments)		
Telephone exchange operators.....	7	
Stenographers.....	7	
Errand boys and mail distributors.....	5	84
<b>CREDIT DEPARTMENT</b>		
Telephone clerks.....	3	
Collectors.....	2	
File and record clerks.....	2	7
<b>ADVERTISING DEPARTMENT</b>		
Clerical assistants.....	3	3
<b>VARIOUS DEPARTMENTS OF MERCHANDISING</b>		
Stock room assistants.....	35	
Clericals to buyers.....	30	
Delivery assistants.....	10	
Special clerks (returned goods desk, appointment desk, etc.).....	10	85
<b>TOTAL.....</b>		<b>185</b>

An analysis of general clerical work is made in the list that follows, the kinds of work involving the largest numbers of employees being set down first:

#### Checking

- Goods with invoices
- Invoices with orders
- Sales checks with tallies
- Cash with cash statements

Bank statements with records  
Inventory with stock  
Extensions and footings  
Entering  
Orders  
Records of stock  
Debits and credits  
Posting  
Counting  
Sorting  
Marking  
Stamping  
Figuring  
Discounts  
Premiums  
Extensions and footings  
Listing  
Filing

### THE OPPORTUNITY FOR BOYS AND GIRLS

To girls and women the big store gives the most of its office positions but to men it is apt to give the best of them. Men in most instances are the heads of departments; but Cleveland has a woman office manager, a woman credit manager, and a woman at the head of advertising. In general the work for girls includes auditing, bookkeeping, assistant cashier work, billing, telephoning, stenography, and machine operating; for boys it includes errand boy, office boy, and clerk positions, bookkeeping, and billing.

It is true that the retail store has, through the variety of positions it offers, an opportunity to find for boys or girls at the beginning of wage-earning

positions that suit their personal qualifications or limitations as the case may be. Whether the store takes advantage of this opportunity to place workers suitably depends largely upon its system. In several of Cleveland's large stores all the younger employees are specially looked after by a person variously known as manager's assistant, as the social or service secretary, or the employment supervisor. Both the merchandising and office sections of a store have simple routine clerical work that boys and girls of meager education and slight intelligence can do. Promotion in most cases falls to those who entered with the best equipment; but it may be earned through the experience the work can give. The line of their promotion is apt to get its direction from the qualities exhibited in the first position; and it may lead through either the merchandising or office work. Once a worker is established in the office he is not likely to step over into the merchandising end of the business.

Because of the tendency of a number of stores to move their workers through the office department without rule or restriction like kings on a checker-board, it is impossible to give examples of promotion that will in every case be representative. Diagrams 8 and 9 represent the logical and usual directions. Diagram 8 shows promotion for girls; Diagram 9 shows it for boys. As a rule girl billers remain billers. The diagram for girls merely shows possible promotion which their experience in billing and their location in the bookkeeping department sometimes

bring about. It should be stated, also, that girls can reach cashier and pay-roll work without the intermediate step of bookkeeping.

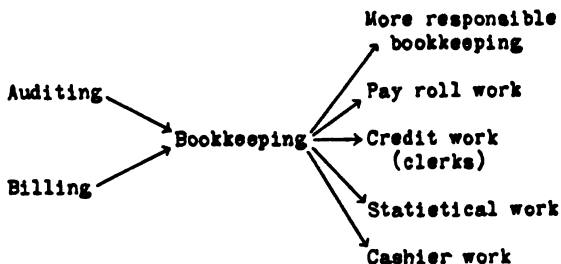


Diagram 8.—Lines of promotion for girl office workers in a retail store

Boy billers are not satisfied to remain at billing. If they do not find promotion in a year or two they usually leave the store. The number of boys in all the divisions is much smaller than the number of girls.

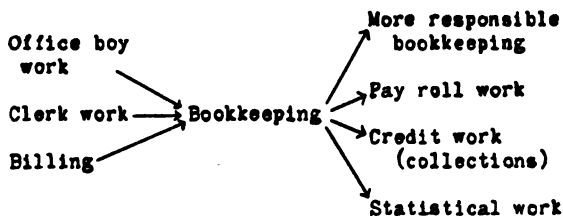


Diagram 9.—Lines of promotion for boy office workers in a retail store

In addition to the starting points which the diagrams show there are others which do not show

logical promotion possibilities, but which give the worker a chance to draw attention to himself and to be chosen for other work if his suitability has been demonstrated and a vacancy occurs. The character of these positions is referred to in the discussion of office work by departments which follows.

### CLERICAL WORK IN PRIVATE OFFICES

The stenographers used in private offices are in some stores loaned from the stenographic bureau of the general office department; in other stores one or two stenographers are especially delegated to do private office work. Their duties include taking correspondence, dictation, and typing lists or statements. Of course the store's most efficient stenographers will be selected for this work.

Statistical work is sometimes done in the offices of the firm and sometimes in the bookkeeping department. In either case it is usually under the supervision of the general office manager. The work covers the preparation of statements and reports on special subjects. Some statistical workers need to be comptometer operators also.

### AUDITING

Since the auditing department in all stores is relatively large, and since it includes the office work into which girls new to the store and new to wage earning are usually put, an explanation of just what it is will be given in some detail; and the checking and

verifying of the auditing department may be taken as a standard of what is meant fundamentally when "simple clerical work" in any large business is referred to in this publication.

The purchase any of us makes in a retail store brings with it a sales slip or sales check which is a duplicate record and which shows the quantity and price of each item, the total cost of the whole, and whether the purchase was for cash, charged, or C. O. D. At the end of each day the originals of all such records are sent from the selling floor where they were made out to the auditing department, where the assistants will next day check the extensions and totals; that is, they will see that 20 yards of marquisette at 19 cents a yard is correctly figured at \$3.80 and that the total is the correct sum for the amount of the purchase.

The salesperson in the merchandise department has not only made out the original sales checks but she has kept all day a summary of her checks on a tally slip.

The number of entries on the day's tally card should be equal to the number of sales checks issued that day, and the total amount noted on the tally card should be equal to the total amount of the sales checks. It is part of the work of the auditing assistants to check the two; and if there are discrepancies the errors must be found. Further, they must check the recorded cash sales for each merchandising department with the statement of the amount of money the head cashier has received from that

department. The most simple form of auditing work, and that at which beginners are usually put, is the sorting of sales checks by departments according to the kind of transaction—cash, charged, or C. O. D.

Arithmetic, and especially mental arithmetic, is the chief requirement for workers in the auditing department. They must be able to add, multiply (numbers of two or three digits usually), and do fractions (halves, thirds, fourths, and eighths) with some speed and absolute accuracy. For footing up long columns of figures, adding machines are used. The introduction of other machines and mechanical devices into the auditing departments of a few stores has to some extent lessened the work and changed its character. Arithmetical tables for computing cost for fractional parts are in use; but they are more adapted to aid the salespeople who make out the checks than the office worker who audits them. The Hollerith tabulating machine is now employed in one store for finding the total of sales for the different merchandising departments or for salespeople within the departments.

### THE BOOKKEEPING DEPARTMENT

The retail store comes nearer to approaching the traditional journal and ledger bookkeeping for numbers of girls than any other large business, and in much of the bookkeeping department's work the understanding of the principle of debit and credit is

an essential thing. The head bookkeeper and his first assistants supervise the entries of the other workers; also the preparation of statements and statistical information. The hundreds of accounts with customers occupy one group of bookkeeping assistants; and with them work billers and comptometer operators. Bill adjustment, accounts with dealers, the pay roll and other accounts payable occupy other groups; and associated with the bookkeepers are those who are engaged in the checking, entering, figuring and form writing of the receiving, order and cashier departments.

### STENOGRAPHY

In a retail store stenography is wholly girls' work, and it is used in connection with correspondence and the preparation of advertising copy. Usually stenographers are grouped in one room, going to the various departments for dictation as they are needed. The number of stenographers required for a large store is surprisingly few. This is due to the fact that most of the store's communications can be reduced to a system of filled-in printed forms. Good work but not unusual work is required. The retail store does not confront the stenographer with difficult technical terms, as many businesses do.

### TELEPHONE WORK

Telephone exchange operators in a store have a task more difficult than they would be likely to encounter

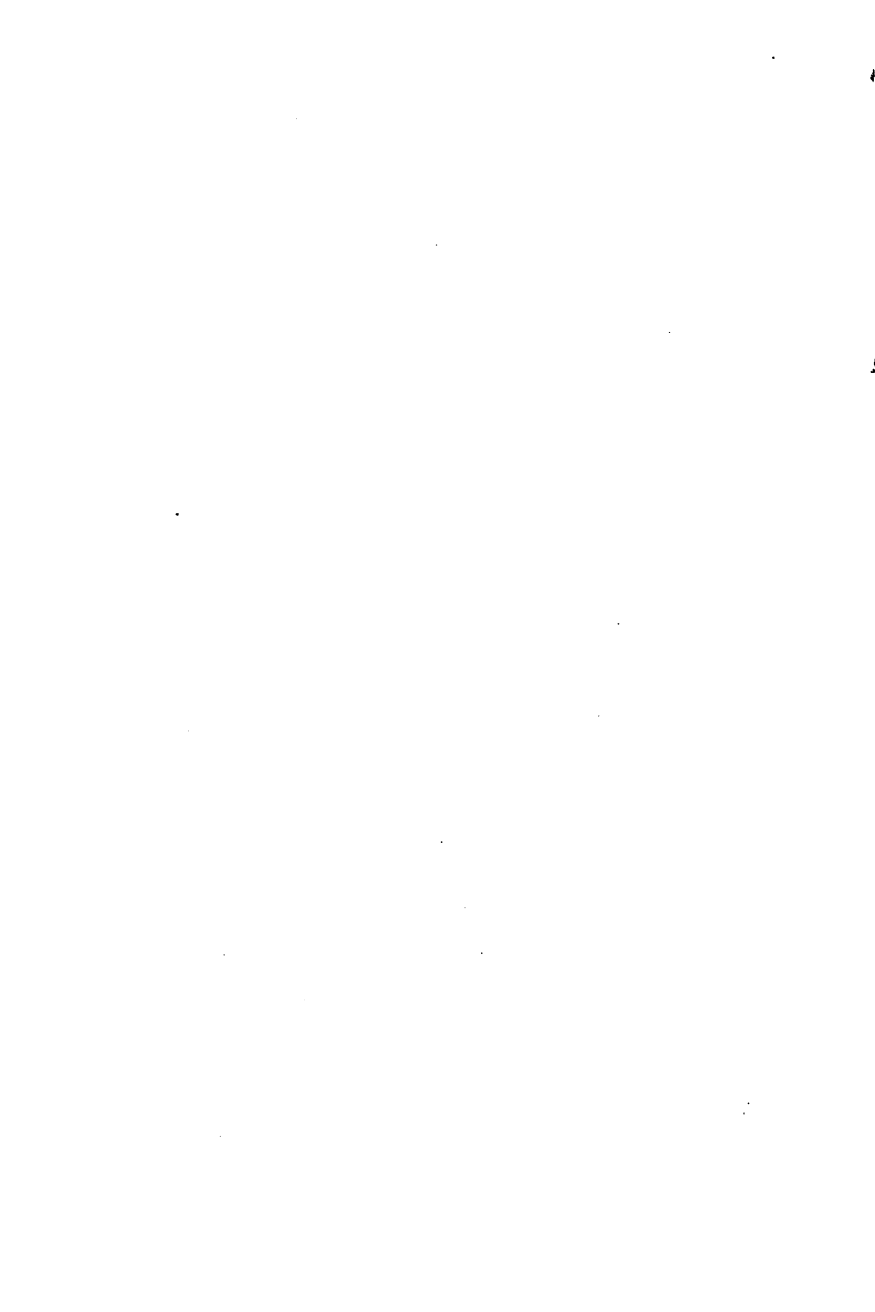
elsewhere. The telephone serves to connect the general public with any of the shop's possible hundred or more departments, and the telephone girl may have to answer inquiries as to the department which carries a certain article of merchandise. So thorough must her knowledge of the merchandise and the store organization be and so important a factor is she in representing the store to customers, that her work might almost be classified as belonging to the selling rather than to the office division of the business. The position calls for the ordinary training of the telephone operator supplemented by a special equipment of intelligence and courtesy.

### THE CREDIT DEPARTMENT

The credit department is closely connected with the general office and is sometimes considered a part of it, but the credit manager is a specialist who has free rein in shaping and systematizing his department's work. No business has such hard credit problems to meet as a large retail business has. Instead of dealing with a few established firms or a relatively small number of individuals as most businesses do, it has to meet the question of trusting hundreds of almost unknown people; and the system it devises for finding out if their credit is good must be perfect enough to make the information available almost instantaneously. A customer who cannot receive his package from the saleswoman until his charge has been declared O. K. will be impatient at waiting.



Modern visible index file in a Cleveland department store. From it clerk can secure in 15 seconds detailed information about any one of 40,000 customers



Besides an insight into organization and system, the department calls for judgment which will serve to get the store's money collected without offending and, consequently, losing desirable trade. The force of credit assistants includes:

1. Collectors, usually young men, who watch the files to see when accounts are overdue, and who write letters or telephone to customers. They also make time terms with customers who are unable to make full payments. All of this work is done by the head of the department in all except the largest establishments.

2. Filing and record assistants who file applications and information obtained by communication with credit associations or with other stores; and who keep a tickler file of information concerning each customer's condition of credit. They are usually women and girls.

3. Telephone girls who receive from the selling floor inquiries about a customer's credit, answering them by reference to a file or index. In stores which place these girls in the credit office, they have some hope of being advanced through the department; but in stores which isolate them, the chances of advancement are slight.

The work of the department as a whole calls for general rather than specific training. Intelligence, accuracy, courtesy, tact, judgment, and an appreciation of the confidential nature of the work are essential qualifications. For the record and filing assistants, legible handwriting and sometimes typing are needed. Experience in filing is an asset, but it

is quite possible to learn the work through experience in the department.

### THE ADVERTISING DEPARTMENT

Advertising is a profession specially trained for as a rule, and the few assistant positions cannot be looked upon as acknowledged training for the important work of the department, or even as preparation for logical promotion to other departments of the store. Advertising assistants are concerned chiefly with cutting advertisements from papers and magazines and pasting them into books for future reference, measuring space, and "running errands" to the printer to carry copy for daily insertions. Boys more often than girls are used for the last named kind of work; and it is said to be more common for these boys to get positions in the printing establishments to which their errands frequently take them than to receive promotion through the advertising department. In the one large store in Cleveland which has a woman at the head of the advertising the assistants are all girls. General education is all the training that the work demands.

### CLERICAL ASSISTANTS TO BUYERS

Of the miscellaneous clerical positions which are connected with merchandising rather than with the general office the most important and most numerous are those of assistants to buyers. Usually a buyer has one assistant; in some instances he has more than one. Such clerical workers take inventory

of the stock behind the counters, help in marking and checking in the stock room, and go into the office department to plan or dictate letters. The following is a summary of their duties:

1. Keeping a running record of the department's stock on hand, both on the selling floor and in the stock room.
2. Checking merchandise received with orders and invoices.
3. Helping the buyer to plan orders.
4. Planning letters or dictating correspondence relating to special orders, wrong merchandise or merchandise that has failed to come.

These assistants need intelligence enough to know the stock carried by the departments—what it is, where it comes from, how much it costs, what the profits are; which goods sell, and which do not. They must be competent to see dealers' representatives in the absence of the buyer. The experience of the position teaches the method of buying and the factors which contribute to getting things sold. Buyers' assistants, more than other clerical workers in a retail store, except stenographers, depend upon good general education, for they need to express themselves correctly and clearly in correspondence. The qualities demanded are intelligence, a retentive memory, judgment, and capacity for meeting and dealing with people. More girls than boys are used in buyers' assistants' positions. There is definite opportunity in this work for promotion to the position of buyer, especially if at some time the worker has gathered experience in selling.

## CHAPTER V

### THE WHOLESALE BUSINESS

Two wholesale districts, occupying the greater part of several blocks, and a few scattered establishments take care of the city's wholesale business. The number of employees in a wholesale house may range from 200 to fewer than 10. Six of the larger houses have a total of about 700 employees, of which only a small proportion are women.

There are interesting differences in the work of large wholesale and retail firms. In retail business the customer comes to the store to do his selecting, and the matter of making a sale depends very largely upon what the buyers have provided. In wholesale business the customer as a rule is sought out by the salesman, and he by the use of samples and descriptions of stock will have to make the customer understand what is for sale. Thus the wholesale establishment's salesman will have to know the stock his firm carries more thoroughly than the average retail salesman has to; and this situation helps to explain why it is that nearly all salesmen in wholesale houses are recruited from the men who have worked with the stock, actually handling the goods in the receiving



Section of billing room of the Root and McBride Co., wholesale dry goods. The billing clerk, seated at elevated desk, writes items on machine as they are called out by clerk who stands below. The biller's desk slides on a track to a position near the assembled purchase which is to be called



room or the stock room. Because customers, generally, do not come to the wholesale house and go from department to department personally selecting the goods as in a retail store, a kind of stock-room work is demanded that is rarely needed in a retail business—that of assembling all the items of the customer's order. The clerks who do this learn what kinds of stock the house carries, the names of the commodities, where they are kept, and who the firm's customers are; and to some extent they learn the customers' characteristic wants.

There is a difference also in the work of the credit department. Even a large wholesale house will need only a few men to ascertain and watch the credit of the group of dealers who are their customers. It seldom will be necessary to use a system which calls for the almost instantaneous credit information which a retail store demands.

The wholesale house, like the retail, has to have an order system for procuring stock, but the kinds of commodities are usually less varied and the number of dealers they order from fewer than in the case of the department store. The recording, filling, checking, and filing of customers' orders, unknown to the ordinary retail business, is for the wholesale house a most important branch of clerical work.

While the sales of retail salespeople in most large stores are tabulated monthly or oftener, no permanent or detailed record is usually made of them. In the wholesale house, however, the sales records of each salesman are carefully kept, not only as evi-

dence of the salesman's efficiency and as a basis for figuring commissions, but for a record of customers to be used in following up future sales.

In a wholesale house having 100 employees their distribution will be approximately as follows:

**TABLE 13.—DISTRIBUTION OF POSITIONS IN A WHOLESALE HOUSE HAVING 100 EMPLOYEES**

<b>Merchandising Department</b>		
Buyers and salesmen . . . . .	10	
Stockmen and boys . . . . .	20	
Receiving department assistants . . . . .	21	
Sales department clerks . . . . .	12	
Filing clerks . . . . .	3	
Telephone clerks . . . . .	5	71
<b>General Office</b>		
Credit men . . . . .	2	
Bookkeepers, assistants, accountants . . . . .	14	
Cashiers . . . . .	3	
Stenographers . . . . .	5	
Billers . . . . .	3	
Mail boys . . . . .	2	29
<b>Total . . . . .</b>		<b>100</b>

An analysis of the clerical positions shows in most common occurrence the following kinds of work:

**Checking**

Buyers' orders with invoices

Invoices with goods received

Customers' orders with goods assembled

**Entering**

**Listing**

Noting and figuring prices (by reference to price book)

**Filing**

**Sorting**

**Assembling**

## THE OPPORTUNITY FOR BOYS

The wholesale business gives boys an opportunity to advance through the business. With the exception of the distinctly office positions, such as credit, bookkeeping, cashier and billing work, which are common to any business, and of a few manual positions, such as porters and packers hold, there are no positions in a wholesale house which do not give experience which will help an employee to advance in the direction of the coveted places of buyers and salesmen. The position as clerk offers two distinct lines of promotion: one through the office and the other through merchandising.

Of those boys who enter trained in both stenography and bookkeeping, some will go into the office end of the business and others into merchandising according to the boy's choice or the kind of vacancy that happens to exist. Those who go into the office will probably work there unless they express a preference for changing to stock work. Most boy applicants, however, offer no specific training, and the firms are entirely willing to take them under this condition. Boys without training, as well as boys with training, who want to get experience which will help them grasp the merchandising end of the business are put into the stock department at once or, less often, into the receiving room. The work of the receiving room is clerical, having to do with the record of the kind, quantity, and condition of shipments received. Receiving clerks as a rule are men rather than boys because of the heavy manual

work involved in opening shipments and conveying them to the proper departments. Work in the stock room includes stowing away in their proper shelves or sections the merchandise which the receiving room sends. Other stock work consists in assembling orders. Boys in the stock room are under the stockman, who in turn is responsible to a head of stock who may have charge of one or more floors. Some boys find their promotion through more and more responsible stock-room work. Others may move over into the general office, there to do clerical work which relates to the purchase or sale of stock. The knowledge they have gained about the stock in their preliminary positions helps to make their clerical work intelligible to them; but in any case the work is simple recording, copying, figuring, and checking. Boys here may be:

1. Assistants to buyers, checking receiving-room reports of merchandise received with buyers' orders.
2. Entry clerks, recording the orders that salesmen and customers send in.
3. Pricing clerks, who note the prices to be charged for each item the customer's order calls for, the price being found in a printed price book.
4. Investigators of complaints for customers who claim that wrong prices have been charged or wrong commodities have been sent.
5. Filing assistants.

In all these positions they need intelligence, a good memory, and the faculty of understanding problems



Notion department of the Root and McBride Company showing young men doing characteristic work in open stock



that come to them in their relation to the business. In a number of them they need the ability to compose and dictate letters.

### THE OPPORTUNITY FOR GIRLS

The work of girls is confined to the office end of the business. They are used for responsible work on the books, but under the supervision of men; and they are seldom employed as cashiers. The stenographic field, however, falls almost wholly to girls. It covers buyers' and salesmen's correspondence, and the typing of orders. Dictaphone operators are in some demand. Girl billers and file clerks are used in about the same proportion as boys. While girls are employed as telephone exchange operators to connect persons calling the house with the desired department, establishments generally prefer to have salesmen answer telephone inquiries and take telephone orders.

## **CHAPTER VI**

### **MANUFACTURING**

This is pre-eminently a manufacturing city. The report of the Ohio Industrial Commission for 1915 shows for Cleveland 52 kinds of manufactures, each employing 100 to 19,000 persons. There is variation with kind of production, but it is safe to say that the office force of these establishments averages about one-twelfth of the whole number of employees. A large share of the clerical work is done in the factory. The work divides itself into the following departments:

- Executive offices
- Sales department
- Advertising department
- Bookkeeping and accounting departments
- Purchasing department
- Stores (raw material) department
- Finished stock and shipping departments
- Service for all departments, including the work of office boys, stenographers, dictaphone and telephone operators

In an establishment having a total of 1,000 employees, the persons holding office positions are represented

approximately in the following figures. The sexes are found in about equal numbers in subordinate clerical work.

**TABLE 14.—DISTRIBUTION OF OFFICE POSITIONS IN A MANUFACTURING ESTABLISHMENT HAVING 1,000 EMPLOYEES**

Executives, specialists, managers, superintendents . . . . .	11
Roadmen . . . . .	3
Bookkeepers, accountants, and assistants . . . . .	18
Clerical workers—factory reports, orders, store and stock-room work . . . . .	37
Stenographers and dictaphone operators . . . . .	6
Telephone operators . . . . .	2
Office boys, messengers . . . . .	2

The sales department of a factory is similar to that of a wholesale house in its salesmen's and customers' records, in its bookkeeping and credit work; but its sales order system involves more work and different work. In a wholesale house an order is filled from stock. In a manufacturing business this is sometimes the case; but usually an order for goods is an order to manufacture goods and, in addition to the pricing, checking, recording, shipping, invoicing, and billing of the wholesale house, the factory's office must communicate the order to the factory and keep in touch with its progress. The routing of staple products, like the pricing, has been worked out in advance by experts; and the clerks' task, except in the case of special orders, is the merely mechanical one of using the index table or catalog. In most manufacturing establishments a considerable amount of typing is done in connection with orders, since it is desirable to transfer the orders, from what-

ever form they come in, to the establishment's own form; and numerous copies have to be made so that each department of manufacturing concerned with the manufacture or shipment of the goods may have a copy.

The manufacturing establishment rivals and in many cases far surpasses the large retail store in the number of persons and the complications which its payroll must take care of. The records of the time clerk give the data for pay-roll figuring in connection with work which is compensated on a time basis. For piece workers wage computation is handled variously. The work coupons, which are the industrial workers' memoranda of what they have done, and the foremen's reports of what has been "passed" from his section are usually the bases.

Cost accounting is the distinguishing work of the manufacturing business. While only a few persons are required for the expert work of devising the system of accounting, for putting reports together and analyzing them, for working out tabulations and summaries, the data from which these persons work come from a very large group, scattered about the establishment and representing nearly every department of factory and office. The memoranda of industrial workers and the reports of foremen go first, however, to a group of factory bookkeepers who check and enter them, sending summaries to the accountants. The departments of bookkeeping and accounting are closely allied. Their subordinate workers are employed in checking reports together and in veri-



The offices of the Cleveland Hardware Company illustrate a fine type of modern office arrangement and lighting. The lighting installation was designed by the National Lamp Works



fyng extensions and totals; and in this work there is a chance at least of acquiring experience for responsible accounting positions.

The clerical work of the advertising department is concerned chiefly with the publication and distribution of catalogs and booklets. Clerical assistants are used largely for circularizing work. From the local post office a list has been obtained showing the Cleveland business houses which contribute the greatest amount of circular advertising to the mails. Manufacturing establishments constitute the majority of these. Some stenographic work, more typing, record work, and filing make up the rest of the duties. There is little chance of advancement through the department.

The general clerical work covering all departments may be analyzed as follows:

#### Checking

- Raw material with invoice
- Invoice with purchasing agent's order
- Inventory of raw material
- Price estimates
- Employees' time cards
- Factory reports, one with another
- Sales orders with assembled shipment

#### Figuring

- Time, wages
- Cost
- Prices, including extensions and totals

#### Entering

- Orders
- Factory records

Form Writing  
Filing  
Circularizing

### THE OPPORTUNITY FOR BOYS AND GIRLS

Most of the persons important in the productive end of the manufacturing business—those who plan and price the season's output in advance, the efficiency engineers who constantly study processes and workers to increase the output, those who by experiment or travel study to improve the product, and the accountants who devise means of determining cost, the purchasing agents, the sales managers, the roadmen, the employment supervisors—depend upon detailed personal knowledge of the processes of manufacture. In the larger establishments these men, in so far as they have come up through the business, are developed through office rather than through factory work; but the great majority of them come to the establishment as specialists, who supplement their special qualification with such study of factory processes and record keeping as their position demands.

Women are holding some of the most important positions in employment supervision and welfare or "service" departments. There are few of them, of course. One large establishment would not commonly have more than two, and only a small percentage of establishments include them at all. These workers are apt to be specialists, trained in factory



Rest room provided by The Sherwin Williams Company for its girl office employees



methods as men specialists are, but it is not unknown for them to be developed from the ranks of factory or office work.

Whether promotion is made from one kind of office work to another depends on the office organization. In factories where one office manager oversees and employs practically all clerical workers there is, of course, chance for a wider range of promotion than in factories which subdivide the duties of supervision. The goal, in office work, is the accountants' office. There is actual promotion, of course, only when an advanced position opens up through the removal or promotion of the person holding it. The result, somewhat common in manufacturing establishments, is that ambitious boys get tired of waiting; and to prevent the best of these from dropping out, the only resort of the firm is to increase wages for work that cannot increase proportionately in value. The problem is lessened by the melancholy fact that not nearly all boys are capable of promotion. In manufacturing offices generally, boys may expect to find use for training in bookkeeping, typing, billing, and filing; girls for bookkeeping (to a less extent than boys), stenography, dictaphone operating, typing, billing, filing, and telephone answering. The majority of the girls are used for typing or filing. Billing is about equally divided between the sexes. The total number of girls and women is approximately a fourth of the men and boys; but establishments vary in this matter, some of the smaller ones employing no girls at all.

“Knowledge of our business is knowledge of our own peculiar organization, the technical terms we use, and the names and peculiarities of our customers”—is one Cleveland’s manufacturing firm’s reply to questions of training. These specific things obviously can be learned only by employment in the business, and only then if the worker’s intelligence and general education are equal to his opportunity. In those positions which have to do with copying, checking, and recording, it is true that a general education contributes more than specialized training could; but in its other positions the manufacturing business more than most businesses gives scope for the application of definite training. The fundamental principles of bookkeeping can be applied in factory bookkeeping and in the bookkeeping and accounting departments. Neat, compact, legible writing of script and figures, used in filling in printed forms and making ledger entries, is needed by nearly all clerical workers; so also are the qualities of intelligence and accuracy and a sense of system and order.

## CHAPTER VII

### BANKING

Cleveland has 37 banks and in addition to these there are 18 branches. The six largest banks have a total of 947 employees, of which approximately one-fourth are women.

The important personages of a bank are the officers and the managers of departments and branches. Other persons of responsibility are the auditors, the cashiers, the general bookkeeper, and the tellers. All the positions of this group are reached logically by promotion up through the business. The proportion of persons holding the various positions in a bank of 100 employees is approximately as follows:

TABLE 15.—DISTRIBUTION OF POSITIONS IN A BANK HAVING  
100 EMPLOYEES

Managers.....	6
Auditor and assistant.....	2
Tellers.....	15
Bookkeepers and assistants.....	35
Clearance clerks.....	4
Other clerks.....	23
Stenographers.....	10
Messengers.....	5

The clerical work of the bank as a whole for its younger workers resolves itself into the following

tasks set down on the basis of their recurrence, the most common being put first. Adding machines are used for figuring wherever practicable.

Footing up entries

Checking

    Cash with footing

    Lists, one with another

Sorting

    Mail

    Cash

    Checks

Entering, posting, balancing

Mailing

Numbering, stamping, counting

Statement work

Figuring percentages

Filing

### THE OPPORTUNITY FOR BOYS

Theoretical progress for a boy step by step from the bottom toward the top may be said to consist of five steps, as follows:

1. Office boy, messenger.
2. Clearance, or other clerk.
3. Bookkeeping assistant.
4. Teller or bookkeeper.
5. Manager or officer.

It is not a quick journey. It will take him half his working lifetime to make it; and he can accomplish it then only if he has the right personal qualities for success and if the right vacancy chances to open when he becomes ready for it. It must be

remembered too that when a vacancy comes he may be but one of several candidates who claim it. Promotion openings depend to some extent upon the accident of employees' leaving, but more upon the growth and development of the business. While it is true that the "room at the top" and the chance to get on are limited, it must be noted that positions of considerable importance—even though below the top—are open to more than half the bank's force of men and boys. Further, banking experience even for a short period is a fundamental asset in any business position; and men of long experience may be able to apply it in a variety of important ways. Those who have passed the fourth step and have the necessary supplementary qualities may be fitted to become in other kinds of business credit men, office managers, treasurers, statisticians, heads of book-keeping departments, or expert accountants; or they may go into a firm of brokers or investment and loan companies.

A Cleveland national bank presents the following summary of the duties which occupy a boy in his beginning job as messenger:

1. Arrive at 7:30 with the mail bag from the post office.
2. Open and sort letters.
3. Endorse checks drawn on banks outside of Cleveland.
4. Go out on the regular route in the down-town district, presenting drafts and notes for payment.
5. Make any special trip during the day, either

to the express office, post office, or any other downtown business place for the City Collection Department.

6. In the afternoon respond to any call for a messenger and fill in the time endorsing outside checks. Seal and stamp the mail, delivering it to the post office.

The messenger's position ought to acquaint him with the organization of the bank, with the personality of its managers and heads of departments; with, to some extent, the bank's business and its way of doing it. If his preliminary education has given him general information about kinds of banks and banking laws and has provided some concrete information about currency and negotiable paper he will be able to get from his work a considerable amount of valuable experience. In employing messengers, banks are more interested in their general education than in their specific training. The manners and appearance of the boy, his intelligence and the bank's faith in his integrity are the deciding considerations.

The clerks of the bookkeeping department take care of a variety of somewhat interchangeable duties. The principles of bookkeeping probably find for numbers of boys more direct application in a bank than in any other large business. The same situation in regard to bookkeeping is true for girls, as we have shown in the case of the department store. The following outline, which is a bookkeeping assistant's account of his routine work, shows that a



The Cleveland Clearing House. The young men who come together every morning representing the various banks of the Clearing House Association



variety is covered and that his program is planned to offer relief in various departments at needed times.

1. Check postings in "B" balance ledger
2. Make up overdraft sheet
3. Assist in paying tellers' department from 10:00 until 11:45 every morning
4. File coupon tickets
5. Sort reconcilements
6. File reconcilements and send old ones to warehouse
7. Enter checks in "D" book
8. Make up and keep all work entered on "D" statements
9. Head up reconcilements
10. Put reconcilements in statement envelopes
11. Make up each evening balance sheet for paying tellers
12. Strike checks; look for difference, if any
13. Take off all balances on sheets for "B" ledger each month
14. Help rule statements each month

Stenography for boys has almost no place in banking in Cleveland. In six large banks employing a total of 66 stenographers only six are boys. An inquiry about the kind of stenographic work done by these boys shows that, unlike the girls, only a portion of their working time is spent in stenography; that their getting a position did not depend on stenography; and that when they are next promoted they will leave stenography forever if they remain in the bank.

### THE OPPORTUNITY FOR GIRLS

When a girl goes into a bank the chances are that she may not even get a foothold on the steps of promotion. She will enter probably as a stenographer on a platform higher than the first step of the stairway where the boy begins. She starts at a higher wage than the boy, not only because usually she is older, but because she does work at first in which she can use her specific training. She will not as a rule step off into any other kind of work later on. She will stay just where she is, getting more expert and having her salary increased as her efficiency becomes greater. The bank's standard for stenographic work is relatively high. The goal is the position of private secretary. In almost every bank there is one such position for a girl.

The girl who does not begin with stenographic work is usually made a clerk, which in most cases is a lower position. The number of girl stenographers and clerks in a bank is about equal. Six banks have a total of 66 stenographers and 67 clerks. Girl clerks need the ability to do quick and accurate figuring; they need to know the principles of book-keeping and of filing and to be accurate in the use of calculating machines. In some positions stenography is needed for promotion. If comptometers are used in a bank they are in most cases operated by girls. In three years' time the girl clerk may have found a place on the second or third steps of the stairway. After that her salary may increase but she probably will not be promoted. In six large banks

five women have positions of importance reached through clerical work: two are tellers; one is an auditor; and one is in charge of a credit desk.

Girls are needed also for telephone answering. This kind of position, with its tendency to be a "dead-end," the banks find difficult to fill with girls intelligent and courteous enough to represent properly the business to the public; but the number of workers required is so small we are not justified in giving further attention to it here. \*

## CHAPTER VIII

### CIVIL SERVICE

#### THE CITY

About two years ago Cleveland reclassified and enlarged her Civil Service system. Now, none of the executive and clerical employees which the city's pay-roll covers find themselves exempt, except elective officers, like the mayor and councilmen, directors of departments and some heads of departmental divisions, members of boards and commissions, the clerk of the council, and a few secretaries to the mayor and department directors.

The city of Cleveland, like any great business organization, includes an executive office, a treasury, auditing and purchasing departments, a telephone exchange, and a stenographic department. In addition, the city brings under its surveillance and largely under the roof of the City Hall a varied group of departments, some of which, like the Water or Lighting Department, practically constitute a business in themselves, except that the element of competition is lacking. Such departments are:

The City Council  
The Municipal Court

The Division of Building  
 The Division of Public Health  
 The Department of Public Service  
 The City Hospital  
 The Water Division  
 The Municipal Lighting Division  
 The Board of Education

A few clerical workers are found also in the office of the Civil Service Commission, the Board of Elections, the Safety Department, Street Cleaning, Street Repairs and Engineering Divisions, Public Parks and Paving Permit Divisions. The clerical employees included in the city's pay-roll for 1915 are:

Clerks.....	195
Stenographer-clerks, stenographers.....	55
Typewriter-clerks, typewriter-copyists.....	26
Bookkeepers.....	19
Telephone operators.....	14
Messenger clerks.....	8
Cashiers.....	5
Copyist.....	1
Multigraph operator.....	1

The Civil Service puts under the heads of messengers, typists, stenographers, or clerks, all those positions which are not executive and which do not require professional or technical preparation. Salaries are graded and positions are grouped together on a basis of skill, proficiency, and responsibility, and not according to the department in which a position is held. Such positions are classified as shown in Table 16.

**TABLE 16.—CLERICAL POSITIONS AND SALARIES IN CITY CIVIL SERVICE**

	Annual salary	
<b>Class A</b> —Minor positions, such as messenger, clerk, telephone operator, etc.....	\$420—	\$540
<b>Class B</b> —Positions requiring some skill and accuracy but not practical experience, such as junior clerk, telephone operator, cashier, etc.....	600—	780
<b>Class C</b> —Positions requiring ability in typewriting and stenography, such as typewriter copyist, stenographer, and court reporter.....	400—	1,200
Grade 1—Typewriter copyist.....	420—	540
Grade 2—Typewriter clerk.....	480—	660
Grade 3—Typewriter clerk.....	600—	780
Grade 4—Junior stenographer.....	480—	660
Grade 5—Stenographer clerk.....	720—	900
Grade 6—Court stenographer.....	800—	1,000
Grade 7—Court stenographer.....	1,000—	1,200
<b>Class D</b> —Positions requiring skill and accuracy and knowledge of departmental practice, such as senior clerk, paymaster, junior bookkeeper, time-keeper, etc.....	1,000—	1,500

Salary advancement for any position is possible within its class or grade limit. For example, a messenger in Class A at a salary of \$460 may be rewarded for good record by increased salary to the amount of \$540, which is the limit for Class A. If he wants to surpass this he can do it only by promotion to a position in a higher class. The promotion will depend upon his passing the higher class examination, upon his place on the eligible list and the accident of a vacancy. Up to the present time the typists and stenographers have been the group of city employees which have been most active in improving their position. Clerks advance with some rapidity through Classes A, B, and C. There is usually a halt at C, because the classes beyond include positions which require a special degree of experience or training. Any person is privileged to try any examination, except in a few specified

cases; thus a Grade 1 typist might take the Grade 3 examination and be appointed to the position of typewriter clerk without holding the intermediate position of Grade 2.

The proportion of city hall employees and of outside persons who take the examinations varies with the kind of examination. The Civil Service secretary states that Class C, which takes care of the largest number of clerical workers, draws upon city employees for about one-third of its examination candidates.

In posting notices of examinations the Civil Service Commission adds summaries of the kind of information the examination calls for. The following is an example of these:

1. For typewriter clerk, Class C, Grade 3, \$600 to \$780

The subjects of the examination will include the following: writing, spelling, arithmetic, plain copy, rough draft, and tabulation. Experience tending to qualify applicants to perform the duties of the position verified to the satisfaction of the Commission will be considered and given weight as a subject of the examination.

The number of civil service openings in any year will, of course, vary. The appointments made to the clerical service in the year September 1, 1914, to September 1, 1915, numbered 132. Examinations are given only when the list of eligibles needs replenishing: thus demand and supply are shown by the year's total of examinations as follows:

Class A, 3 examinations  
Class B, 5 examinations  
Class C, 24 examinations  
Class D, 6 examinations

If an employee of the City Civil Service is at any time discharged or reduced in rank because of the abolition of his position or for some other reason not his fault, the Commission is bound to transfer him to a position in the same class and grade as the one he held or to reinstate him on the eligible list within a year.

Equal opportunity is held out for both sexes. All the examinations and all the positions in the service are open to men and women alike and equal pay is given. There is small chance to show preference in choosing candidates from the eligible list because the rank numbers cannot be disregarded. This situation, is, however, comparatively new, for it dates back only as far as the reorganization of the Civil Service. Up to this time women have not, except in the typing and stenographic positions, taken full advantage of their opportunity. Among 159 clerks at present employed, only 8 are women. It is not possible to show which sex is more successful in passing examinations because there is no record of the whole number of persons who have taken them. The Civil Service secretary states, however, that the percentage of women who pass is higher than the percentage of men.

When examinations are to be given, public notification is made by means of the City Record (the

city's official weekly publication), the bulletin board in the Civil Service office and, in some cases, the daily papers. Persons who wish to be examined are required to register their names previous to the examination day. The detail of the regulations governing examinations will be found in a pamphlet called Civil Service Rules, which can be had on application at the Civil Service office.

### THE STATE

When the State of Ohio passed its Civil Service Act in 1912, the newly created Commission found itself facing the tremendous task of organizing the service for approximately 12,000 employees. Thus the examination features of the law did not become effective until June 1, 1914, making our state organization younger by a few months than even our revised city service. At the end of 1914 the State Civil Service Commission reported holding "more examinations in the first year of its existence than any state or city commission in the entire history of Civil Service" and the examining, rating, and placing of eligible lists of "more people than were ever before examined in a single year outside of the work of the Federal Commission."

In commenting upon its present powers and duties the Commission points out that the state has as yet no fixed rule for standardizing the salaries for the positions which the Commission has so carefully put into classes. Thus unequal compensation

may be given for the performance of similar or identical duties.

The clerical positions now held in Cleveland under the State Civil Service are in the following offices:

Industrial Commission of Ohio, branch office  
 County Auditor  
 County Recorder  
 County Treasurer  
 Probate Court Judge  
 Juvenile Court Judge  
 County Clerk  
 County Surveyor  
 County Commissioners  
 County Road Repair

The distribution of the positions among men and women and the salary range is shown in Table 17. It will be observed that 61 are held by men and 45 by women. The maximum salary now received by any woman in a clerical position is \$1,320.

TABLE 17.—CLERICAL POSITIONS AND SALARY RANGE FOR MEN AND WOMEN IN CUYAHOGA COUNTY DIVISION OF STATE CIVIL SERVICE

Positions	Number of men	Number of women	Salary range
Payroll auditors	2	..	\$1,200
Bookkeepers	3	..	1,500
Cashiers	4	..	1,800
Clerks	50	8	600 to 2,000
Stenographers	1	8	720 to 1,200
Typists	..	25	540 to 840
Telephone operators	..	4	780 to 840
Messengers	1	..	900

The Commission does not publish lists of sample questions or general bulletins, but it will send ap-

plicants information about specific examinations. They are told, among other things, that questions for each position will cover.

1. A discussion of the duties of the position.
2. A practical test of English, penmanship, spelling, arithmetic, and general information. The candidate's English is frequently rated from his written report, in which form, penmanship, the general use of good language or its opposite is manifested. In many positions, legibility is the only penmanship test required and the arithmetic or mathematics vary according to the requirements of the position. All these subjects are treated in a practical and not technical manner.
3. An account of experience and training.

The present law provides that the Commission in making its appointments may exercise its judgment by making a choice of three names highest on the eligible list. This has the advantage of making it possible to select the most completely desirable candidate; but it also, as the Commission points out, gives a chance for some misuse of power. Any candidate, even after his appointment, is subject to three months' trial service before his position is assured. Examinations are held as candidates are needed; and they are given, for the convenience of the candidates, simultaneously in several cities. Notice is posted in advance in state buildings in every city. Candidates for examination are required to obtain from the office of the State Civil Service Commission, Columbus, Ohio, an application form. This must

be filled out and returned previous to the date of the examination they wish to take.

### THE UNITED STATES

Twice a year, in January and July, the United States Government publishes a manual of information regarding examinations for the Federal Civil Service. The January edition of the manual outlines the schedule of spring examinations, and the July edition the schedule of fall examinations. This book can be had on application at the Civil Service office in the Cleveland Post Office Building. The information is complete and clear so that our discussion of the Federal Civil Service here may be confined to a brief summarizing.

All governmental positions which can be classified as clerical work are under the Civil Service regulations. Positions in the departments and general offices at Washington, D. C., are designated by the term "departmental service." Positions elsewhere in the United States are designated "field service."

Examinations for the departmental service are held in every state. In the case of examinations for the positions of telephone operators, clerks, sub-clerks, stenographers, typists, and bookkeepers, the field service examination is given at its district headquarters. There are in the United States 12 Civil Service districts. Ohio, Indiana, and Kentucky form one district with Cincinnati as their headquarters.

The clerical positions held in the Federal Building, Cleveland, are to be found chiefly in the Post Office, Railway Mail, Customs, and Internal Revenue departments. There are 582 clerks and seven stenographers employed. Seven of the clerks are women; all the rest are men.

The average age of applicants is 28 years. For typists, bookkeepers, and clerks, the minimum age is 18 years. The three names highest on the eligible list are submitted to the appointing officer for each vacancy. Any person who is a citizen of the United States is eligible to take the examination. A person already in the employ of the government may take an examination for another position but he cannot be appointed to it until he has held his present position three years. Having once been employed by the government he cannot be removed from service except for proved inefficiency. Entrance into the service is usually at the lowest salary, the higher salaried positions being filled by promotion. To quote from the manual, "Stenographers and typists who are competent and willing to accept the small salary offered them (men \$840 or \$900; women \$720) have much greater prospect for appointment than applicants for other clerical positions. The supply of eligibles willing to accept the usual entrance salary is not equal to the demand." For the year ending January, 1914, these figures for the whole United States are shown in Table 18.

**TABLE 18.—NUMBER OF PERSONS PASSING EXAMINATIONS  
FOR CLERICAL POSITIONS IN THE FEDERAL CIVIL SERVICE  
AND NUMBER RECEIVING APPOINTMENT DURING 1914**

Kind of examination	Number passed	Number appointed	Salary range
Bookkeepers	147	24	\$720 to \$ 900
Stenographers	334	81	720 to 960
Clerks	1020	78	720 to 1,000
Stenographers and typists	828	460	720 to 1,500
Typists	878	325	720 to 1,500

The government allows each state a quota of appointments to positions in the Civil Service. This is determined chiefly on the basis of population. Ohio's quota for all positions in July, 1915, was 1,054 through examination, 150 through reinstatement, and 224 through promotion and transfer.

## CHAPTER IX

### THE SMALL OFFICE

A tour through a modern office building from floor to floor, and through a block or two of any side street in the business section of the city would probably bring one into the presence of the small office in nearly all its types—the office of the professional person or other specialist, such as the doctor or the architect; the many offices which in some form represent trade; and those—of private organizations largely—which exist for service, propaganda, or research. There is another type which would not be thus encountered. This is the office of the theatre, hotel, or institution, and it is usually small, even though the business it is attached to be large.

We shall try to present here in some detail the positions which the small office covers and to compare its work and opportunity with that which the large office gives. For information relating to boys and men we turn again to the 1,000 records referred to in Chapter I. There are 470 small office positions noted among them. The facts for girls and women have been obtained through the study of calls for workers filed in 1914 and 1915 at a private bureau supplying office help. This bureau has a recognized

standing with employers; the firms which call upon it for workers include some of the best in the city when considered from the standpoint of the working conditions they offer and their position in the community. The applicants for employment vary widely in age and qualification. The majority of them are between 18 and 25 years; nearly all have had business training and a considerable number offer, in addition, a high school education. This bureau has provided information for 303 small office positions.

TABLE 19.—SMALL OFFICES REPRESENTED IN 470 POSITIONS FOR BOYS AND MEN AND 303 POSITIONS FOR GIRLS AND WOMEN

Offices Employing Boys and Men	Offices Employing Girls and Women
TRADE .....342	TRADE .....174
Sales	Sales
Retail	Retail
Insurance	Insurance
Brokerage	Real estate
Real estate	Coal and lumber
Restaurant	Brokerage
Commission	Restaurant
Loan	Commission
Accounting	Contracting
Bonding	
Contracting	
AGENCY, ASSOCIATION .....103	AGENCY, ASSOCIATION ..... 38
PROFESSIONAL..... 16	INDUSTRIAL..... 35
Law	Manufacturing
Doctor's	Engineering and construction
Undertaking	Tailoring
	Repairing
INDUSTRIAL..... 5	PROFESSIONAL..... 29
Tailor	Law
Repairing	Doctor's
Plumbing	Cartoonist's
	Chemist's
TRANSPORTATION..... 3	TRANSPORTATION..... 18
Taxicab	Cartage, taxicab
INSTITUTION..... 1	INSTITUTION, HOTEL, THEATRE 9

Table 19 shows for each sex the kinds of offices these positions represent. They are set down in order, the offices found in greatest numbers being put first. The trade group is much the largest for

both sexes; and there is similarity between the sexes throughout the table, both in the kinds of offices represented and in their relative numbers.

**TABLE 20.—DISTRIBUTION OF 470 ADMINISTRATIVE AND CLERICAL POSITIONS FOR MEN, AND 303 FOR WOMEN, IN SMALL OFFICES**

Administrative	Men	Women
Executives.....	12	..
Salesmen and solicitors.....	84	1
Agents and distributors.....	47	..
Credit and collection men.....	9	..
Specialists.....	4	..
Clerical		
Clerks.....	191	51
Bookkeepers and cashiers.....	52	57
Stenographers.....	35	146
General office workers.....	35	23
Machine workers.....	1	25
Totals.....	470	303

Table 20 shows the positions for both sexes in the small office as distributed between general administrative work and specialized clerical work. There is one important feature of the work of the small office which is not revealed by the figures in the table. This relates to the combination of stenography and bookkeeping. In the case of the large offices, this was found in only one position among 1,000. In the case of the small offices, this combination is found in 66 positions in 1,000.

In our general discussion of wages, in Chapter X, the question of the comparative profitableness of large and small office positions is considered. But there is one question about opportunity which may be referred to here. Which type of office provides

better experience for the younger workers? The answer can have only general application, for individual establishments will always be found to disprove a rule; and further, the answer must be different for boys and girls. Boys who are looking to their clerical positions for knowledge of business and business methods only will be more likely to find their needs met in the average large office. Good organization and systematic "up-to-date" methods may or may not exist in a small office; but where a large force of workers is employed, these qualities are practically assured from their very necessity. Further, the gradation of positions and the various avenues opened to boys in a large office give them a better chance to find themselves and their opportunity than the small office does. It is a long jump from the post of stenographer, book-keeper, or office clerk, to a partnership in the firm. In the small office progression from one to the other has slight chance of realization; and there are in most cases no intermediate steps.

For girls who, as a class, do not want an acquaintance with business beyond the needs of clerical positions and whose advancement will be through, and not out of, clerical work, the small office may be expected to serve as well as the large. It may be true that, on the whole, the small office opportunity is the better of the two types, for it holds greater possibility for developing and recognizing the individuality of a capable girl. Such recognition is likely to bring her increasingly responsible and interesting work.

## CHAPTER X

### WAGES

The wage opportunity of the mass of industrial workers lies within the bounds of industrial work; the wage opportunity of a specialist like a salesman lies within salesmanship or some other special field. We cannot however consider that the wage opportunity of the mass of clerical workers—boy workers at least—lies within clerical work. This is because nearly half the men and boys in commercial pursuits are in the productive field of general administrative work; slightly more than half have specialized clerical positions.

A study of the 1,000 records referred to in Chapter I shows that of those persons now engaged in general administrative work, 40 per cent definitely served an apprenticeship in clerical work; and undoubtedly others should be included whose complete record was not obtained. We cannot therefore think of clerical workers as limited to the wage opportunity assigned to clerical work. There is nothing except their own preference or limitations to keep them from stepping over into the boundless fields of business, wherein no kind of wage comparison can be made.

This is a general statement applicable at the present time to a large number of men and boys and to an almost insignificant minority of women and girls; and it must be borne in mind throughout the comments on wages that follow. Probably these are the questions the reader would ask about wages:

1. How does clerical work compare with other occupations in wages and regularity of employment?
2. In what kinds of business are clerical positions best paid?
3. How do the various clerical positions compare with each other in wages?
4. Is the wage opportunity better in the large or the small office?
5. Do advanced education and specialized training make for higher wages?
6. How does the wage opportunity differ for boys and girls?

The wage report of the Ohio Industrial Commission, 1915, leaves no doubt that clerical work is comparatively a well-paid employment. In making a comparison of clerical work with other occupations that of salesmanship was selected as representing a group of workers similar in requirements and standards to the group represented in clerical work. Industrial employees are compared for contrast. As the combined wage of workers in all industries could not be significant, we have presented the wages in a few industries separately, selecting those which employ men and women in largest numbers. Eighteen dollars may be considered high wages in any work; there-

fore in this study of opportunity wages of \$18 and over are included. Table 21 shows, for men, that clerical occupations rank only slightly lower than salesmanship, which heads the list; and printing and publishing is the only industry which approximates them. It shows, for women, that clerical occupations pay best; that salesmanship ranks second, and all the industries have a considerably lower rank. These and the following wage data are for Cuyahoga County, which is tantamount to saying that they are for Cleveland.

TABLE 21.—MEN AND WOMEN IN EACH 1,000 IN CLERICAL, SALESMANSHIP, AND INDUSTRIAL OCCUPATIONS RECEIVING WEEKLY WAGES INDICATED. OHIO INDUSTRIAL COMMISSION, 1915

	\$25 and over	\$18 to \$25
<b>MEN</b>		
Salesmanship.....	276	241
Clerical Occupations.....	273	211
Printing and publishing.....	236	267
Automobile, including bodies and parts.....	118	180
Steel works and rolling mills.....	73	235
Stoves and furnaces.....	31	235
Foundry and machine-shop products.....	31	204
<b>WOMEN</b>		
Clerical Occupations.....	23	81
Salesmanship.....	14	31
Women's clothing.....	5	21
Hosiery and knit goods.....	0.8	1
Telegraph and telephone.....	0.6	4
Laundries and dry cleaning.....	none	2
Gas and electric fixtures, lamps, and reflectors.....	none	0.8

Table 21 is interesting not only as a comparison of wages in various occupations: it shows also the contrast between the wages of men and women. The proportion of women clerical workers receiving high wages, \$18 and over, is less than a fourth that of the men. Since so few women are included in this group, Table 22, showing the larger number receiving \$12

and over, is added. Here again the clerical occupations lead; women's clothing and salesmanship stand next, but far below. Other industrial occupations have also an obviously low rank.

**TABLE 22.—WOMEN IN EACH 1,000 IN CLERICAL, SALESMANSHIP, AND INDUSTRIAL OCCUPATIONS RECEIVING WEEKLY WAGES OF \$12 AND OVER. OHIO INDUSTRIAL COMMISSION, 1915**

<b>Clerical Occupations</b> .....	<b>447</b>
Women's clothing .....	225
Salesmanship .....	209
Hosiery and knit goods .....	80
Telegraph and telephone .....	61
Laundries and dry cleaning .....	43
Gas and electric fixtures, lamps, and reflectors .....	32

A high wage rate is a meaningless thing if it does not go hand in hand with regular employment. Fortunately for our purpose the Ohio Industrial Commission Report includes a study of employment fluctuation. Table 23, which is based on this report, shows that clerical work, compared with salesmanship and women's clothing, the two occupations nearest clerical work in wage rate, has comparatively little fluctuation.

**TABLE 23.—IRREGULARITY OF EMPLOYMENT. AVERAGE AND MAXIMUM PERCENTAGES BY WHICH NUMBER OF WORKERS EMPLOYED EACH MONTH DIFFERS FROM LARGEST NUMBER IN ANY MONTH DURING YEAR. CLEVELAND, 1915**

	<b>Average</b>	<b>Maximum</b>
<b>Clerical Occupations</b> .....	<b>0.6</b>	<b>1.2</b>
Men's clothing .....	3.9	6.7
Printing and publishing .....	4.8	9.2
Foundry and machine-shop products ..	6.3	12.4
Salesmanship .....	11.9	17.4
Women's clothing .....	14.9	34.4
Gas and electric fixtures, lamps, and reflectors .....	18.6	32.1

From the wage figures supplied by the Ohio Industrial Commission we have culled those which represent most nearly the several types of business which this publication has already described. Under the heading "Transportation and Public Utilities," the Commission includes local cartage and transfer companies, telegraph and telephone companies, and water transportation. It should be noted that the railroads, which make up the city's largest transportation group, are not included. The title "Trade," as used here, covers retail and wholesale houses, retail delivery and service companies, banks, real estate and mercantile agencies, and various small offices. Manufacturing covers 55 industries and mechanical pursuits. The proportion of clerical workers receiving high wages in each kind of business is shown in Table 24. Manufacturing shows for both men and women the greatest number receiving the highest wage—\$25 and over. Trade for both men and women ranks second. But it will be noted, in the case of men, that the sum of all those receiving wages in excess of \$18 is the same in both Trade and Transportation and Public Utilities. The table gives, further, a comparison of men's and women's wages. The number of women receiving \$18 and over in any of the three kinds of business is notably small in contrast with the number of men.

**TABLE 24.—NUMBER OF MEN AND WOMEN IN EACH 100 CLERICAL WORKERS IN THREE KINDS OF BUSINESS RECEIVING WAGES INDICATED. CLEVELAND, 1915**

Business	\$25 and over		\$18 to \$25	
	Men	Women	Men	Women
Manufacturing	31	5	22	11
Trade	24	2	18	6
Transportation and Public Utilities	18	none	24	5

The wage report of the Commission does not tell us anything about positions, so other sources have now to be sought. We turn therefore to the 1,000 records of men and boys in commercial work and the 2,816 records of women and girls previously referred to and described in Chapter I. The wage information for men and boys is fairly complete, giving data in many cases for more than one position per person; for girls there is less information, only 510 positions out of the 2,816 showing definite figures. In Table 25 minimum and maximum wages, which are the extremes received by a few, are separately stated. The average wage given is the mathematical average of all except those which are obviously extremes. The dashes indicate that the positions were too few to be represented. The table shows for men that bookkeepers and stenographers are a little better paid than the average clerk is; and, for women, that the stenographer's pay is highest and the machine worker's pay is lowest.

The difference between the wages of men and women is less apparent here than in the tables pre-

viously shown. But it should be remembered that, while the women's records represent the whole gamut of positions from the bottom to the top, the men's records cover a miscellany of persons who have sought employment. We have already given the evidence for believing that these records represent men who reach the standard of average clerical workers; but it is not to be supposed that the best paid bookkeepers, cashiers, and accountants will be found on the registration list of any employment bureau.

**TABLE 25.—WEEKLY WAGES OF MEN AND WOMEN IN CLERICAL POSITIONS IN CLEVELAND**

	Minimum		Maximum		Average	
	Men	Women	Men	Women	Men	Women
Bookkeepers and accountants	\$6.00	\$6.00	\$37.50	\$30.00	\$15.47	\$10.14
Stenographers	5.25	5.00	29.25	31.00	15.00	13.43
Clerks	8.00	8.00	37.50	..	12.27	..
Machine workers	..	5.00	..	17.50	..	9.65

These positions are again compared in Table 26. The figures are for men and boys only, since no data are available for women and girls. It appears that bookkeepers have their best opportunity in wholesale business, clerks in transportation and public utilities, and stenographers in manufacturing.

**TABLE 26.—NUMBER OF MEN IN EACH 100 RECEIVING \$18 A WEEK OR OVER IN OFFICE WORK IN FOUR KINDS OF BUSINESS IN CLEVELAND**

	Bookkeepers	Stenographers	Clerks
Transportation and public utilities	..	58	42
Retail	60	..	37
Wholesale	67	..	30
Manufacturing	64	63	28

**TABLE 27.—NUMBER OF MEN AND WOMEN IN EACH 100 RECEIVING \$15 A WEEK OR OVER IN LARGE AND SMALL OFFICES IN CLEVELAND**

	Large offices		Small offices	
	Men	Women	Men	Women
Bookkeeping	66	23	61	28
Stenography	61	24	81	13
Clerical	36	3	8	..

In making our comparison of wages in the more common clerical positions in large and small offices, we have two sources of information. The data for boys and men were drawn from the 1,000 records provided by the Young Men's Christian Association Employment Bureau; the data for girls and women were obtained by an examination of the calls for workers received in 1914-1915 by the private employment agency referred to in Chapter IX. Wage information was secured for a total of 1,755 positions for boys and men, and 707 positions for girls and women. On the basis of these figures, Table 27, on this page, indicates that men stenographers find their best pay in the small office; clerks find it, conspicuously, in the large. The two types of office show nearly equal compensation for bookkeeping positions. For women, it is indicated that stenographers are better paid in the large office; bookkeeping positions are somewhat better in the small. It will be observed that no woman clerk in a small office had a salary of \$15 or over, and that only a tiny proportion in large offices received it. Also,

throughout the table the proportion of women receiving \$15 and over is very much smaller than that of the men.

The relation of training and education to wage opportunity is more apparent for girls than for boys. Among the 2,816 positions, representing all those held by girls and women in 133 establishments, it was found that 2,209 required special training for either entrance or advancement. A study has been made of the wage advancement for two groups of girls—one group being made up of those who had grade school preparation, and the other of high school graduates. All the girls in both groups had completed business training courses and all had been in office employment an equal length of time. The correlation between high school education and increased wages is evident. More than half the grade-prepared girls appear among those who received no increase in two years' time; but less than one-fourth of the high school girls are in this class. Among those who received the maximum advancement, \$4 and over, more than half the high school graduates, but *none* of the grade-prepared girls, are included.

We have taken the 1,000 records of boys and men already referred to and have separated those which show salaries of \$20 a week and over from those showing lower salaries. For both groups we have made a study of preparation. The proportions of workers having high school or more advanced education, business training, and a combination of these have

been worked out for each group. Table 28, which is the result, shows high and low wage groups distinctly similar in the amount and kind of their preparation. This points to, but by no means proves, the conclusion that wage success in the case of boys may, at present, be attributable to neither education nor training but to certain other qualities, such as, perhaps, personal qualities or experience.

**TABLE 28.—EDUCATION OF EACH 100 MEN IN OFFICE WORK RECEIVING \$20 PER WEEK OR OVER COMPARED WITH THAT OF THOSE RECEIVING LESS THAN \$20**

	Receiving \$20 and over	Receiving less than \$20
Advanced education without business training.....	43	40
Grade education without business training	29	31
Advanced education and business training	17	17
Grade education and business training...	11	10
Not ascertained.....	..	2
Total .....	100	100

### The Conclusions Which Wage Study Indicates

1. The wage opportunities for clerical workers, especially men, may lie in business positions, outside the limits of clerical work.

2. Men clerical workers receive about the same pay as salesmen and more pay than industrial workers. Women clerical workers receive more than either saleswomen or industrial workers.

3. Employment is much more regular in clerical work than it is in salesmanship or industrial work.

4. For men clerical workers the wage opportunity is better in manufacturing and trade than in some kinds of transportation business. For women it is better in manufacturing and transportation than it is in trade.

5. Men's wages tend to be higher than women's all through clerical work.

6. Among the clerical positions, bookkeeping shows the highest wage average for men; clerks' positions show the lowest. Stenography shows the highest for women; machine work the lowest.

7. Men bookkeepers show their best wage average in the wholesale business, clerks in transportation, and stenographers in manufacturing.

8. The small office gives better wage opportunity to women bookkeepers and men stenographers; the large office favors women stenographers and men clerks.

9. For boys, there is some indication that advanced education and commercial training, in their present status, are less closely related to high wages than are personal qualities and experience.

10. For girls the combination of high school education and business training is the best preparation for wage advancement.

11. For girls, a general high school education and usually business training are essential to the assurance of even a living wage. Business training based upon less than high school education is almost futile.

## CHAPTER XI

### COMMERCIAL TRAINING AS A SCHEME OF EDUCATION

There are two points of view from which one may judge the success of a public commercial school. When one thinks of it as preparatory for commercial work he is bound to ask if the school knows the field it is training for; if it is giving the most complete, the most specialized, the most developing and yet the briefest course that can be evolved; if it has taken care to select pupils apparently capable of succeeding in the commercial field; if the spirit of the school is to eliminate the unfit and to develop the fit; if it safeguards its reputation, and therefore the wage-earning opportunity of its graduates, by sending out, with the school's diploma, only those pupils who completely qualify under the standard the school can afford to be judged by. What we have just described is the vocational view, and the one from which the employers' wants and the successful careers of graduates are seen to loom large.

The other point of view is the educational one. We have to think now not of a special school with a single vocational purpose and with possibly a com-

petitive attitude toward other schools; but merely of one school out of a group of schools, all having together the common responsibility of taking care of all the children of the city who can enter upon any sort of a high school education. Conspicuous from this viewpoint are the children—all the children—not seen as groups, but individually. The question of education is not which children will help to keep up the standard of this or that school; but which school will supplement the most of the things that this young person needs in order to make him as fit as he can be made for self-support and for living. A letter received from the principal of the High School of Commerce puts clearly and truthfully this aspect of the kind of service the school may be called upon to give. In speaking of his students of "poorer" scholarship, he said:

"Many of these have been failed in many subjects and they have been detained in school in some cases an additional year. \* \* \* \* Perhaps they should have been advised to drop out of school. I am not so sure. A teacher's judgment may be at fault and the boy or girl, thought by his teacher to be impossible for the business world, after all does meet with moderate success; and such boys and girls have perhaps as much right to perform their mediocre work in the business world as in any other line of human activity. They must make their living somehow, somewhere, and no occupation can hope to be immune from them."

Of course the school system should aim, through its elementary curriculum and through scientific

tests and study, to provide the means for discovering whether the commercial high school or some other, in the case of each of these boys and girls, offers the best education to met their special needs. The present situation is set forth in the letter quoted above which continues as follows:

“\*\*\*\* We are compelled to accept all who are regularly graduated from the eighth grade and who come to us with entrance cards or certificates. We can examine none who bring this certificate and we know nothing of their fitness for commercial or professional life; that is supposed to be passed upon by their parents, perhaps with the advice of their eighth grade teachers.”

Several times in the course of this investigation the suggestion has come that the academic high schools tend to “throw off” onto the commercial and technical schools the pupils that are not a credit to their own instruction. The reason here is wrong; the practice may be right. If a boy or girl does not get along with one type of education, the solution may be to try another type. The object should be, of course, not the maintenance of the standards of any school, but the best education for the pupil. Whether or not the commercial schools are receiving a large proportion of pupils of inferior scholarship is now a matter of definite information. Some tables offered in another publication\* of this series indicate that the West High School of Commerce receives on the whole a medium grade of children; the East

\* Measuring the Work of the Public Schools.—Judd.

High School of Commerce, a slightly lower grade. The figures presented cover all the children entering the high schools of the city in 1914. They show that West High School of Commerce and two academic high schools received a smaller percentage of low-rank elementary pupils than any of the other high schools. In its percentage of high-rank elementary pupils received, the West High School of Commerce holds a middle ground, five high schools showing a higher percentage and five high schools—including East Commercial—showing a lower.

The publication already referred to considers also the ages of these entering pupils. It is shown that the academic schools received the largest number of those who had made rapid and normal progress in the grades, the technical schools received the smallest number, and the commercial schools stand between.

Further, a basis has been worked out for comparing the records of these pupils at the end of their first semester in the various high schools. It appears that the low-rank elementary pupils who entered the West High School of Commerce had a greater tendency to lose rank than similar pupils who entered academic or technical high schools. While this proves nothing for the individual pupil, it does indicate that the High School of Commerce is not to be looked upon as a wholesale means of providing a successful type of education for academic failures.

We believe that the vocational and educational points of view should work in harmony; and that, if disagreement occurs, the educational view should

prevail. Any boy or girl, bright or stupid, belongs in the school in which he can work best and which holds his interest most; but no vocational school should grant a certificate of graduation to any one who has not reached the school's standard of achievement. Employers have a right to the school's guarantee in this form; yet they have not a right to criticize the school's product unfavorably if the boy or girl in their employ has not the evidence that he is a graduate of the school.

Any undemocratic spirit that may exist in the attitude of academic toward commercial students is lessened, the High School of Commerce asserts, since commercial courses have been put into a separate school. No spirit of this kind has been discoverable among the teachers; and there would be small ground to justify it because salaries of commercial teachers are at least as high as those of academic teachers, and the proportion who have taken academic degrees is for both types of teachers equally large. It is true that advanced degrees among the academic teachers are in some cases to be set against practical business experience and special business courses among the commercial teachers.

A large proportion of academic and commercial teachers have had the advantage of a higher education; but as yet there exists no normal school preparation for the teaching of business subjects.

In matters of supervision, commercial and academic education are somewhat differently treated.

While all high school teachers in the city are nominally under division superintendents, the responsibility for the quality of commercial teachers' work is practically left to the principal of the school.

The West High School of Commerce is distinctly at a disadvantage in its present equipment. No other high school in the city has to accept such crowded or unsuitable housing.

If Herbert Spencer were living and writing in the present stage of development of the commercial high school it is not probable that, even then, he would modify his definition of education for all the people, separating out the commercial students for a little program of limitation all their own. He might admit that arithmetic and bookkeeping, English and shorthand, physical geography and the history of commerce should all be correlated together; it is certain that he would have said that any or the sum of them should be correlated with living. The boy or girl who looks for his wage-earning opportunity in clerical occupations is entitled, like any other boy or girl, to "all round" development through education; and of course, incidentally, "all round" development will react profitably upon his wage-earning work.

The business of education is only half done when it trains him for some form of commercial work; it needs to consider elements which should supplement the routine of the clerical worker's employment. It would seem that athletics and other things that make for a spirit of play and for habits of physical

relaxation and recreation are among the first supplemental requirements for students who are going into clerical occupations. Clerical workers have a short work day as compared with employees in other fields and their work as a rule is not mentally fatiguing. If there are limits to the opportunities the work offers in itself for the realization of beauty, at least it leaves time and energy for acquiring it in other ways. The world of books, pictures, music, and the out-of-doors belongs to all of its people alike. But, if some do not lay hold upon them it will be because they do not understand them; and it is the school's part to plant the germs of understanding and appreciation and to point the way to further knowledge for those students especially who are less likely to find these things in the ordinary contacts of their everyday life.

## CHAPTER XII

### THE TRAINING CLEVELAND GIVES

Boys and girls in Cleveland in search of commercial training can choose among several types of instruction—public, parochial, philanthropic and private schools; correspondence courses or private tutors. They may attend classes by day or night as they prefer, and they may devote to their training any period of time from 30 days to four years, according to the school they choose. They may have instruction free or pay from \$.25 a lesson in a philanthropic school to \$60 and upward for a course in a private school. Most pupils in private schools attend for about 8 months at a cost of \$100 to \$150, a little less being charged if they pay the whole sum in advance. The cost of books and supplies amounts to \$15 or \$20 in addition.

At the present time day school instruction in commercial education is given in private, public, parochial, and philanthropic schools. More than half of all the students are enrolled in the private schools. The public schools care for nearly one-quarter of the pupils, the parochial schools for almost another quarter, and the philanthropic schools for the small remaining number.

In 1913-14, commercial subjects were taught in four academic high schools; they now are taught in six, and include the following: Bookkeeping combined with commercial arithmetic (1st year); and bookkeeping combined with business forms and commercial law (2d year). These two years of commercial studies may be taken either in the first or last half of a newly organized four year high school course known as the English Course. They may be taken also in the first half of the four year Scientific Course.

The new English course "does not prepare for college, but is designed to equip boys and girls for business and the home." The High School of Commerce "prepares directly for all kinds of commercial occupations." These two descriptions, taken from the outline of high school education which the school system publishes for the use of grade children, seem to us to fail to make clear any basis on which to choose between them. Not only may day students in the public schools make a choice between business subjects in an academic high school and a commercial course in a separate high school; they may also embark upon an academic course which does not necessarily include business subjects and later, if they wish, can be transferred to a corresponding class or grade in the High School of Commerce.

Evening instruction in commercial subjects is given in private, public, and philanthropic schools. The private schools enroll nearly three-quarters of the students, the public schools less than one-

quarter, and the philanthropic schools the small remaining number.

The standards, entrance requirements, and the type and quality of instruction in all these schools, as well as the night school situation, have all been discussed in detail in another publication.\* The course of study in the High Schools of Commerce is referred to in the following chapter. For our present purpose only a few comments are to be made. The question that chiefly concerns us here is, Why do boys and girls choose to pay for instruction that the city offers free? Obviously, because the pay (private) schools are those which offer a short cut to the goal. The course in the public high schools is four years in length. That in the parochial and philanthropic schools is of two years duration or less. That in private schools calls for eight months of study or less.

Of the 10 private schools in the city, only three have an enrollment largely made up of high-school-prepared pupils. This means for at least seven schools that grade-prepared pupils can be turned out "finished" in commercial training and can get started in wage earning from three to four years earlier than High School of Commerce pupils can. If the work of training can really be done in months, why is the public school taking years to do it? If the school is to hold its proper place in the commercial education field it must first satisfy itself that so long a course is necessary for thorough commercial

\* Commercial Work and Training for Girls.—Eaton and Stevens, Macmillan, 1915.

training, and that a degree of maturity at the beginning of wage earning is an asset making for future success; in the second place, it must find some way of demonstrating the truth of its conviction to boys and girls, and fathers and mothers. Our own conclusions on these points are expressed in following chapters.

The 852 boys and girls who entered the day commercial courses and classes of the public school, for the year beginning September, 1914, were distributed as shown in Table 29.

TABLE 29.—STUDENTS ENTERING PUBLIC COMMERCIAL SCHOOLS AND CLASSES IN 1914-15

	Boys	Girls
West High School of Commerce.....	104	217
East High School of Commerce.....	40	61
Bookkeeping enrollment in six academic high schools.....	209	221

The establishment of a separate High School of Commerce went into effect in 1909. Before that time commercial instruction was taken care of in courses offered at academic high schools. These courses included many more commercial subjects than the academic schools now give. The reason assigned for providing separate high schools of commerce are: the better opportunity given to correlate courses, a desire to raise the status of commercial education in the opinion of students and teachers, economy of equipment and teaching force, and the hope of prolonging the schooling of children destined to become wage-earners early.

The most practical, available testimony to the desirability of continuing to maintain a separate High School of Commerce is shown in its ability to keep students in school. Figures provided by public school authorities compare the percentage of graduation for students trained in commercial courses in academic high schools prior to 1909 with the percentage of graduation for High School of Commerce students. They show that, in three commercial classes enrolled from 1903 to 1905 inclusive, only 14 per cent to 16 per cent of the students completed the four year course; but that the High School of Commerce, beginning with the year 1913, when its first four year class was graduated, shows to date a graduation average of 45 per cent. Table 30 gives the figures in detail.

**TABLE 30.—STUDENTS ENTERING COMMERCIAL COURSES AND NUMBER COMPLETING COURSE IN ACADEMIC HIGH SCHOOLS AND IN HIGH SCHOOL OF COMMERCE**

Students entering commercial courses in academic high schools	Students graduating four years later	Per cent
In 1903—425	59	14
In 1904—426	51	12
In 1905—450	70	16
Students entering High School of Commerce		
In 1909—252	119	47
In 1910—272	127	47
In 1911—307	129	42

The figures of Table 30 show that with the opening of the High School of Commerce the number of pupils taking commercial courses is the public high

schools was greatly reduced. On the other hand, the new high school has made a very much better record than the old courses did in the matter of carrying through to graduation those pupils who began the course.

## CHAPTER XIII

### THE RESULTS OF UNDIFFERENTIATED TRAINING FOR BOYS AND GIRLS

All the time the commercial schools have been turning out boys and girls from the same commercial training mould, employers have been busily separating them, fitting the boys into certain kinds of positions and girls into others. Girls are used about as they are received, for they have been shaped very well for the places they are to fill. But it is different in the case of the boys. Employers generally seem to disregard the moulding touches the schools have put upon the preparation of boys and have proceeded as if dealing with material unformed though not necessarily raw.

The truth is that boys and girls have been trained alike for very different futures; and the kind of training that has been given is, in its general plan, suitable for girls and unsuitable for boys. This statement describes not only Cleveland's commercial schools: it applies to commercial education generally all over the country.

To realize just what the differences are in the future of boys and girls it may be necessary to return to Chapter I. We note four conspicuous facts:

1. Boys' training must look forward to either clerical or general administrative work; girl's training as a rule to clerical occupations only.

2. Certain types of clerical occupations are open to boys; other types are open to girls.

3. The clerical occupations for boys cover such varied work that specific preliminary training is impractical; the clerical occupations for girls cover a few types of work and can be anticipated and definitely prepared for.

4. The clerical occupations for boys are those which depend almost wholly upon general preparation and personal qualities; the clerical occupations for girls depend upon these to a certain extent but their essential demand is for specialized training.

In a railroad office where a study was made of definite requirements for all boys and girls in nine departments, illustrations of differences were found as shown in Table 31. The number of girls employed is much smaller than the number of boys.

TABLE 31.—TRAINING REQUIREMENTS FOR BOYS AND FOR GIRLS IN THE DEPARTMENTS OF A RAILROAD OFFICE

Kind of training	Departments requiring training	
	For boys	For girls
Penmanship	9	2
Figuring	7	1
Stenography	4	4
Proficiency in English	2	..
Bookkeeping	2	..
Typing	2	..
Billing	2	..
Comptometer operating	..	5
Dictaphone operating	..	1

The girls' list indicates with some completeness their whole training need. In contrast, the boys' does not. Training in the specific things suggested would not in any case provide training for the whole of a boy's duties. His usual work as clerk may involve stenography, billing, typing, etc., but his real value to the position depends much less upon these than upon accuracy, sense of system, memory, and capacity to understand the purpose of his work and its relation to other parts of the business.

Table 32 gives the course of study followed in the Cleveland High School of Commerce. There is slight differentiation between the work of boys and that of girls. The sum of its effects is to give girls botany and physiology instead of the history of commerce given to the boys; and to allow girls to substitute applied arts for the chemistry required of boys. The differentiation cannot be looked upon as very significant from a vocational standpoint. Shorthand and typing are made electives for boys and girls alike; but as two out of three, or three out of four subjects, must always be chosen, there is not great freedom for elimination. Of course the choice of shorthand presupposes the choice of typing, for the one without the other is useless.

A group of 100 boys and girls, all graduates of the same commercial school, have been interviewed in regard to their training as they see it now in the light of one year to three years experience in wage-earning work. The school they represent is one of the best in the city. The group of students covers every

member of several graduation classes, and the opinions gathered must be accepted therefore as completely representative of the school's success from the standpoint of its students.

TABLE 32.—COURSE OF STUDY OF THE HIGH SCHOOL OF COMMERCE

	Periods per week
<b>1st Year</b>	
English.....	5
Mathematics.....	5
Boys, commercial geography.....	5
Girls, botany, physiology.....	5
Penmanship and business forms.....	5
Applied arts.....	5
Physical training.....	2
Music (optional).....	1
Study.....	13
<b>2nd Year</b>	
English.....	5
Mathematics.....	5
Boys, history of commerce.....	5
Girls, commercial geography.....	5
Penmanship and bookkeeping.....	5
Applied arts.....	5
Physical training.....	2
Music (optional).....	1
Study.....	13
<b>3rd Year</b>	
English.....	5
German, French, Spanish*.....	5
Boys, chemistry.....	5
Girls, chemistry (elective).....	5
Girls, applied arts (optional).....	5
American history, civics, and municipal activities.....	5
Shorthand*.....	5
Typewriting (elective)*.....	5
Bookkeeping, accounting, and arithmetic.....	5
Physical training (optional).....	2
Music (optional).....	1
Study.....	10
<b>4th Year</b>	
English.....	5
German, French, Spanish (elective)*.....	5
Physics (elective)*.....	5
Economics, commercial law, transportation, and local industries.....	5
Shorthand (elective)*.....	5
Typewriting (elective)*.....	5
Banking, salesmanship, organization, cataloging, office appliances.....	5
Physical training (optional).....	2
Music (optional).....	1
Study.....	10

Of 60 girls, only one expressed general dissatisfaction.

\* Boys must elect two; girls must elect three.

tion with her training, and more than half spoke with unqualified appreciation. The 13 girls who made critical observations were employed as stenographers or bookkeepers. Their comments, which follow, are clearly of two kinds: those which show that there was a lack of training or of sufficient training in some specified line; and those showing that special training for a girl in two lines may result in non-use of training in one of them.

#### GIRLS' COMMENTS

Needed more drill in taking dictation.

Should have had more chance to practise typing.

Should have learned how to operate office machines.

Needed more drill in spelling.

Used stenography but not bookkeeping.

Used bookkeeping but not stenography.

Of 40 boys, six denounced their whole training and only 10 approved of it in an unqualified way. Sixteen made definite complaints of certain features. The different kinds of work represented by the 22 boys who criticized their training wholly or in part are contained in the list on page 140. It will be noted that it typifies very well the great groups of positions held by men and boys in the city as a whole, as Diagrams 5 and 6 show.

The trend of the boys' comments is not to complain of insufficient training, as the girls in most cases do, but rather of overtraining in specific subjects.

The boys point out this or that thing which they have learned and are not being given an opportunity to apply. And strangely enough their tendency is to blame business for not letting them use their training rather than to blame the school for giving them training they could not use!

Positions	Business
Time clerk . . . . .	Manufacturing
Filing and correspondence clerk . . . . .	"
Order clerk . . . . .	"
Bill clerk . . . . .	"
Audit clerk . . . . .	Railroad
Clearance clerk . . . . .	Banking
Bill clerk . . . . .	Wholesale
Order clerk . . . . .	"
Bill clerk . . . . .	Sales Office
Cashier . . . . .	"
Bookkeeping assistant . . . . .	Manufacturing
Bookkeeping assistant . . . . .	Banking
Bookkeeping assistant . . . . .	Wholesale
Bookkeeper . . . . .	Sales Office
General office boy . . . . .	Construction

### BOYS' COMMENTS

No chance in business to use any of their training.

No chance to use shorthand.

No chance to use bookkeeping.

Should have been taught more practical bookkeeping.

Should have been taught writing so they could do it all day without getting tired.

Some of the comments of the boys who made wholesale criticism of their training are given here in the boys' own words in order to show as poignantly as

possible in just what way the traditional kind of training is failing of its purpose. The boy whose comment is given first was asked how well his commercial training had prepared him for his work as railroad office clerk.

"It's too good for it! Boys who never went to commercial school are doing this work the same as me."

"I could have gotten that knowledge quicker than in four years. Business men want experience more than schooling, anyway."

"Employers don't make a note of it whether you went to a commercial school or not."

"I didn't need a commercial training to hold down this \$40 job."

But most boys as we have said are more inclined to feel a resentment toward business than toward the school for any misconnection between training and work. It is not easy for them to realize that the school could make so grave a mistake as to fit boys for shorthand or bookkeeping all out of proportion to the demand for them in business. Once these things are learned, boys will expect to put them into practice in wage-earning; and it is not strange that having acquired them so laboriously they hold on to them with almost pathetic tenacity. Some boys have worried themselves unnecessarily about their future because it appeared to hold no shorthand; and others have even stood in the way of their own opportunity because they insisted upon finding a use for specific things they were trained to do.

Some direct quotations from the records of interviews with the 22 boys referred to above illustrate these points.

Number 1

Has not used stenography, bookkeeping or any other special preparation. He wished he had known what he was going into when he took this position (order clerk, manufacturing establishment) for in it he has practically thrown away all his special training.

Number 2

Said he had forgotten all his shorthand by this time (seven months) and that the machine (typewriter) does not run so quickly as it once did because of lack of practice. For a time he made friends dictate to him.

Number 3

No chance as yet (three months) to use stenography or bookkeeping. He regrets this and hopes there will be an opening in one of these branches very soon. When asked if he were not getting rusty in shorthand he replied that he pressed his small brother into service and made him give him "good dictation" for practice.

Number 4

Lamented bitterly the "loss" of all his training, not a bit of which in his opinion he is putting into practice. He has never used his typing or shorthand and says he would have to study them again if he needed to use them.

Number 5

Has not used shorthand at all. Sometimes thinks he would like to "take it up" again to recover his speed.

## CHAPTER XIV

### GENERAL RECOMMENDATIONS FOR TRAINING

When one is planning so practical a form of education as commercial training, he is not free to include all the things that it might be well to know, or to allow all the time that it might be well to spend. He has not even the right to take the traditional four years as a starting-point, creating a volume of studies to fill them. Commercial students, as a rule, feel the urge of wage-earning; there are, unquestionably, many among them whose families are close to the poverty line. The best commercial training, that is, the training which will give the most effective help to the students who need help most, will aim, therefore, to be also the briefest. The school should provide a full high school course in commercial, as well as other lines of study, for those students who are able to take it. But it should also consider the possibility of compressing into a shorter period the essentials—or at least the fundamentals—of commercial education for those who cannot afford to remain to the end. Our own conclusion, resulting from the study of many business

offices and from interviews with many business men and office workers, is that fundamental commercial education is very like what we ordinarily speak of as general education.

A good foundation in English and in the "three R's" is the only thing upon which specialized commercial training or business itself can build. Those private schools which give high school graduates a short concentrated business course have been able to turn out a product generally satisfactory to employers. The private schools which plaster a business course of equal length and similar content upon children of grade-school preparation produce a product which shows a large proportion of failure.\* What we learn from this is, that if the public school is to consider shortening the commercial course for those students whose financial situation demands it, this shortening must not be brought about by curtailing general fundamental education; but that it is possible to compress, into a shorter period than the public school now allows, the purely business subjects. This means practically that the pupils who take a course shorter than the full high school period should be well grounded in general subjects but have few or no special subjects.

If the question arises as to why students, thus taught, should be in a commercial school at all, since the academic high schools take care of general education, three answers can be suggested:

\* Chapter 2, Commercial Work and Training for Girls.—Eaton and Stevens.

1. Parents who think they cannot afford to send their children to an academic high school will, in some cases, allow them to continue their education in a vocational high school because the latter course appeals to them as a money investment.

2. General education in the first years of an academic course is at best only part of a whole. There is no intention to reach a logical stopping place at the end of two or three years, or to have covered within those periods a balanced program.

3. General education in a commercial school may include very nearly the same subjects that general education in an academic school does; but in the methods and materials used in teaching them and in the special drill and emphasis put upon parts of them, it may be very different in the two kinds of schools.

#### FOUR ELEMENTS OF COMMERCIAL INSTRUCTION

An examination of the course of study of the High School of Commerce shows that it includes four types of subjects: those like Local Industries, which provide general information and may be termed "background" subjects; those like geometry (included in mathematics), which are expected to aid in the development of necessary qualities, such as reasoning, accuracy, etc.; those like stenography, which constitute training that is to be directly applied in wage earning; and finally those like music and physical training, which are cultural or in some other way supplementary and are expected to make a balanced course from a broad educational standpoint. All these types have a legitimate place in

the curriculum. The problem is to make pupils understand them in their true significance, to apportion to each type its just due of attention and time, and to make sure that the purpose of each is being promoted best by the particular group of subjects chosen to represent it.

Interviews with the graduates of several High School of Commerce classes showed that they were in many instances viewing their whole course in the light of just one of these types—specific training to be directly applied in work. The student comment which follows, and which shows clearly that the boy did not grasp the real purpose of a large share of his work, is typical of other comments; and it shows an attitude of disappointment which better understanding would have avoided.

“Of the mathematics, only arithmetic helped. I liked algebra and geometry but they were of no use. I took physics, chemistry, commercial geography, civics and economics but none helped at all. Even geography had no use. English literature did not help but commercial correspondence and spelling did. Shorthand was all right, but I only used it in business the first month and have forgotten it all by now.”

#### REQUIRED, ELECTIVE, AND CONTINUATION SUBJECTS

Obviously some subjects must be required; others must be elective. Some are to be put into the regular day course; others belong in night continuation classes. A general rule for day required subjects is,

all the subjects that all the pupils are sure to need; but it will be desirable to make some differentiation in the required subjects for boys and girls, as later chapters point out. In some cases what is required for one sex, should be elective for the other. A narrow range of choice among more or less unsuitable electives should not be made a device for filling up the hours of the schedule. Such remnants of time should rather be devoted to strengthening any part of the student's essential preparation that may be weak. Elective courses should be those as a rule aiming at special training and which students will choose to some extent on the ground of vocational tendency. It is in connection with the choice of these courses that the school needs to provide vocational information which tells something of the nature of various lines of work, the wages, the demand and supply.

The night commercial continuation classes should teach any subject, general or special, which a sufficient group—perhaps 10 or more—desire and guarantee to attend. Training for specific occupations should be given in subjects which are offered as electives in the day school but which pupils could not know in advance they would need; and also in subjects which depend upon experience in work, and in some instances upon maturity. A night course in salesmanship, for example, would have practical value for a young man employed as a salesman by day which, in the case of an inexperienced boy in school, it could not have. The following is a merely suggestive list of the kind of unit courses that may be

in demand for night classes. Most of them are true continuation courses in that they carry the student to an advanced stage of proficiency related to or based upon his actual experience in work.

- Bookkeeping
- Accounting
- Salesmanship
- Advertising
- Commercial law
- Filing
- Foreign language
- Special work in English
- Operating typewriter, comptometer, biller and other machines
- Private secretary course

In planning the regular day course for a commercial school it may be the wisest course to prepare specifically for only the immediate future—the kinds of positions boys and girls may be expected to hold in the first two or three years of wage earning; and in addition to try to develop qualities which will help them to take advantage of the opportunities that may come. Whatever more is needed in their later years, business itself or, as we have already indicated, night continuation classes will be expected to supply.

The study of business offices upon which this report is based gave special consideration to the three subjects which are made fundamentally important in any business course—arithmetic, penmanship, and bookkeeping. That all are needed was obvious;

but just what kinds of arithmetic, writing and book-keeping business on the whole can make use of directly was a subject for careful inquiry.

#### WHAT KIND OF ARITHMETIC DOES BUSINESS NEED?

The business arithmetic of the textbooks, including such subjects as commission, profit and loss, interest, discount, and stocks and bonds may be a practical means for contributing to a commercial student's background of information about the methods of business; and some of its subjects may be inseparably correlated with a study of bookkeeping. There is undoubtedly material in business arithmetic which can be used in the development of reasoning power and other qualities referred to in the chapter that follows. But only a limited number of commercial students will make direct application of the subjects of business arithmetic in the early years of their wage-earning. What business wants is facility in fundamental operations.

Adding and calculating machines have in almost all large offices lightened the burden of footing long columns, of adding and multiplying large figures, and of finding percentages on an extensive scale. In some instances frequent need for figuring fractions is taken care of by the use of arithmetical tables. But all these devices call for an accuracy in noting and transcribing results which constitutes in itself a feature of arithmetic training.

Most of the work in business which is to be classed

as arithmetic consists in simple figuring. It includes addition, in which the columns are short and the number of digits in each line is varied; multiplication, in which the multiplicand may be of any size, but the multiplier is composed as a rule of not more than two or three digits; and fractions which have small denominators—halves, thirds, fourths, and eighths. A very considerable share of the arithmetical work of business consists in verifying and checking results already computed. Facility in the kind of mental arithmetic that will enable a worker to verify an extension or footing almost at a glance is one of business' primary demands.

#### WHAT ARE THE REQUIREMENTS IN PENMANSHIP?

The penmanship virtues are usually summarized in three characteristics—legibility, neatness, and speed. The High School of Commerce wisely gives emphasis to ease in writing rather than to speed; for while proper physical position in writing makes for speed, it takes care of a more important requirement. It makes it possible for a worker to write for hours without weariness; and this is a demand which business in many instances put upon its workers. But a characteristic of practical penmanship which is necessary and which is not generally acknowledged is compactness. Practically all the longhand writing in business is within the ruled line space of a ledger and the ruled compartments of printed forms. A large hand or a sprawling hand, if it does not over-

flow the boundaries, will at least fill the allotted space too closely, and will destroy the effect of clearness in arrangement that the page or form was expected to convey.

The correct writing and placing of figures is another factor that deserves attention.

### WHAT KIND OF BOOKKEEPING INFORMATION WILL BE USED?

The value of a general bookkeeping course as a source of information about the conduct of business, and as a practice field for the development of business qualities and standards, is referred to in Chapter XVI. And bookkeeping in both special and general courses affords drill in some of the types of arithmetic which business uses most. A general bookkeeping course has something in it of value for all commercial students; a special or vocational bookkeeping course will have value for some of the students. The concerted plea of employers is that all bookkeeping teaching be made less inclusive than it now is. They insist that it is principles and not systems that pupils should know. It is a question whether anything more than the simple fundamental teachings of a general course are needed even by those pupils who elect to go into bookkeeping work. At the most, they will need special drill in a few processes or methods. The following is what is left of a list of requirements that was checked and rechecked by a group of employers representing more than eight important kinds

of business. This is what they finally arrived at as the maximum practical need of a vocational book-keeping course for either boys or girls:

Understanding of debit and credit  
Understanding of posting.  
Ability to take off a trial balance.

They noted certain other requirements, such as accuracy in figuring, neatness, and good penmanship; but these are not exclusively matters of bookkeeping.

Our own observation showed that in large book-keeping departments in several kinds of business the young people employed there are not needing to apply even these few principles. What application could they have for the great numbers who are engaged in making simple entries, all of one kind, which they copy from forms; in checking and verifying figures; in listing or tabulating; and in the use of the adding machine? Sometimes judgment is called for in making entries when slight irregularities occur in the forms from which they are copied: but the work on the whole draws only upon training for accuracy.

#### THE METHOD OF COMMERCIAL TRAINING

Business surrounds its workers with an environment of duplicating, filing and binding devices, stamping and mailing machines, business directories and manuals and many other things which it will expect them to use with deftness. It may look to them to

answer the telephone with intelligence and courtesy; or to do circular work showing a knowledge of efficient methods in the folding, enclosing, sealing, and stamping of letters. The concrete demands of this sort are too numerous for any school course to hope to cover, and the amount of training any one of them requires is too slight to merit the school's attention. There is none among them which cannot be learned after getting into business.

It is true, nevertheless, that commercial students, especially girls, do feel a shyness and awkwardness in their first position which acts as a handicap to making a good first impression, and this is largely because of the unfamiliarity of their surroundings generally, and their ignorance of the use of the common tools of business. Furthermore, stenographers going into a business office to work for the first time have a special adjustment to make in taking a stranger's dictation. Their school practice experience has been with one individual, the teacher, who more or less unconsciously has accustomed the student to certain inflections and modulations in speech and regulations of speed.

There was a time when it was popular for commercial training to try to simulate some features of business environment by introducing into the course as much of the physical paraphernalia of business as it could. Wire cages served for a bank's offices, for example, and imitation coins and paper money were used as currency. This game of playing at business is generally admitted to be complicated and time

taking, and to miss after all the essential thing—a true business environment containing the element of competition and setting convincing standards of business methods and means. To take its place, comes the plan of sending undergraduate commercial students into business offices to get an actual experience which is to be regarded as part of their training. The successful working out of the scheme depends upon finding a sufficient number of employers willing to take pupils and upon getting these employers to provide work that has real chance for experience in it.

There are a few schools in the country which claim success for this plan, not only in the kind of coöperation they are able to get with employers, but in the results to the students as a method of commercial training. They believe it not only helps the pupil to make his adjustment easily when he first goes to a real position, but it gives zest and meaning to commercial instruction while the pupil is still in school. The years are too few in which the plan has been in operation to make definite claims for it now.

The Cleveland High School of Commerce has for some time had this idea under consideration, but no step has, as yet, been taken to promote it. The Commercial Department of the Young Men's Christian Association is, however, in the midst of an interesting experiment of a similar sort. It has arranged with 20 Cleveland employers to give half-time office employment to 40 boys for a period of two years. That is, each employer keeps two boys on one job,

one boy working in the morning and the other in the afternoon. The half of the day that a boy does not work he spends in the Young Men's Christian Association commercial classes. Thus at the end of the experimental period, these boys will have had two years of half-time employment and two years of half-time commercial instruction. The work they do is compensated at approximately \$15 a month, an amount which a little more than covers the cost of tuition and books for the commercial course.

The High Schools of Commerce in other cities, by the plan previously described, give students at most a few weeks of business experience correlated with training. The scheme of the Young Men's Christian Association gives, as we have said, two years; and it claims for itself the additional advantage of giving the school's instructors opportunity to adapt the training to the student's individual needs, and of insuring good coöperation from employers. For, as it is working out, employers come to regard the boys as permanent acquisitions, and are concerned with the success of the experiment for their own interests as well as the boys'. The two-year period will be completed in September, 1916. A few of the original group of 40 have dropped out and their places have been filled by others. In some instances the training has been abandoned because the employers have desired to take the boys on full time; but this outcome the Association does not encourage. In the majority of cases training and work are proceeding hand in hand and, according to the state-

ment of the Director of the Commercial Department, there is substantial demonstration of the wisdom of the plan.

Whether the High School of Commerce with its larger group of boys and girls would be able to follow out such a program is a question. One can imagine success for picked students that might not apply to the rank and file. But there is in Cleveland one group of employers upon whom the school has perhaps a right to call for coöperation to any necessary degree. These are the managers of the several branches of business carried on by the Board of Education. Their offices should, and probably do, exemplify true business atmosphere and business standards, modern methods and modern tools. They cover the regular employment of about 35 persons, including accountants, bookkeepers, cashiers, pay-roll, time and other clerks, stenographers, multi-graph operators, and messengers. The divisions cover:

- Office of the Director of Schools
- Division of Architect
- Division of Accounts
- Work-shop
- Division of Supplies
- Division of Books

In the educational and clerk departments there are 17 clerical workers, including statistical, index and other clerks, stenographers, copyists, and messengers.

It is obvious that the school could, if it would, supplement the training of at least part of its com-

mercial students through the use of opportunities offered in the school board's own offices. But since the public is bound to judge the management of school business by the efficiency standards of competitive business, is it fair to ask the school to risk an experiment which may hamper its business system or, at least, increase its cost? The schools of Gary, Indiana, give their commercial classes charge of the student pay-roll as well as practical experience in the educational offices. As we understand it, the business offices of the schools are not being thus used. But Gary is making wide use of the school plant in other types of vocational instruction and demonstrating its conviction that the needs of the students are the primary consideration; and that any part of the school system which can serve a useful purpose in education should do so, even though some problems of adjustment have to be met and some money has to be spent.

## CHAPTER XV

### HOW TO TRAIN THE GIRLS

The kind of training now given in the best commercial schools is well suited to the needs of girls. When questions of training were discussed with girl graduates of the High School of Commerce and their employers, general satisfaction was expressed by both groups. Such unfavorable criticisms as were made did not touch upon the kind of training given; they did not point out parts of the training as unnecessary or unused; they related chiefly to the amount or quality of the training. If any girls were found deficient, the remedy lay in giving them more drill in the same things they had already been taught. And because these instances were very few it must be concluded that the school on the whole is traveling in the right direction, and that the minority of students which do not come up to the standard of the others must be prevented by some personal handicap.

A report prepared by the High School of Commerce relative to the quality of its instruction contains in part the following information:

"Our students won the North-Eastern Ohio Teachers' Association typewriting contest, 1912.

They now hold the Ohio State and Cleveland typewriting championships in both the amateur and student classes. The foregoing achievements were won in competition with high school and business college students."

"Our students won 11 out of 12 Phonographic World contests, writing from practice matter, and all of the Kimball Magazine typewriting contests for the years 1914 to 1915, decision based upon actual practice. In each of these series of contests, thousands of high school and business college students all over the country participated."

"High School of Commerce students hold the Ohio State and Cleveland shorthand championships in both the amateur and student classes, competing with high school and business college students."

More than 300 girls, graduates of various commercial schools in the city, and 300 employers in Cleveland have expressed themselves to us on the subject of training. A digest of the remarks of all these shows that they believe its essential features are, (1) specific training for some one kind of work, (2) thorough English preparation, (3) business-like attitude toward work, and (4) standards of good taste in appearance and manners.

Some quoted comments may help to illustrate further by showing where employers put the emphasis in either commendation or complaint:

Mr. H. said of Anna, "She is a good worker and well trained on the whole. Her shorthand and typing are improved, but she still needs to work up speed. She has a nice personality and an

attractive appearance. She is reliable in all her work and her typing is clean. Her English is excellent and she knew, when she came, how to make up letters in proper form. It is too bad though," he added, "that since she is such good material she did not have just a little more training and practice in school in reading her notes and taking dictation, for it took her quite a while to work up her speed. It seems to me the school ought to have succeeded better in doing that for her and thus relieve the employer of work of that kind."

Mr. C. said he had given Edith a fair trial and did not wish to keep her, chiefly on account of personal deficiencies. The girl, he said, was unattractive and unpresentable, which prevented her usefulness in a place constantly open to the public, where people of all kinds had to be received and sometimes interviewed. She was very "nervy," he continued, and without sense of what was her business and what was not; and she could not seem to take any suggestions for improvement. As for her training in work, he said, she was by no means unsatisfactory. Her spelling, grammar, typing and knowledge of how to write a letter were acceptable, if not remarkable.

It may now be clear that the course of study for girls should be, and to a great extent is, formulated on the following plan:

A maximum of general education combined with specific training in some one line.

A modicum of training for the development of mental qualities and business standards.

A minimum of "background" subjects.

That girls are to be definitely trained for any of three occupations—stenography in largest numbers, or bookkeeping, or machine operating in smaller numbers—Chapter I has already shown. While stenography is often done in connection with general office work, or with filing or other clerical services which do not require prolonged preliminary training, it is not commonly done in connection with bookkeeping or machine work. This means that the girl who elects to study stenography should not be expected to study in addition either of these other lines with a view to their practical application in work. She should choose among them one type of special training and confine her efforts to becoming proficient in that type.

### STENOGRAPHY

For the stenographer, whose success depends upon her general intelligence, upon her thorough knowledge of English, and upon a maturity sufficient to give developed judgment and the capacity for taking responsibility, nothing less than a full high school course is to be considered. Quantities of evidence to this are found in the publication\* previously referred to. Recognition of the same truth is very wisely made in the advertising circular of the Commercial Department of the Young Women's Christian Association, which reads:

\* Commercial Work and Training for Girls.—Eaton and Stevens.

“Good knowledge of English is absolutely necessary before beginning a study of stenography. Therefore, a graduate of a grade school who has done no further work in English is *not ready* to study stenography.”

To show that it may not be necessary to prolong both general education and business training in order to insure good wages and advancement, we have compared the records of two groups of 50 girls each, one group including graduates of the four-year course of the High School of Commerce and the other group including graduates of a seven months' commercial course in a private school of good standing who entered this school with a full four years' academic high school preparation. In making this comparison it must be remembered, in fairness to the High School of Commerce, that we are matching students who have had four school years of preparation with other students who have had nearly five years. It is possible too that the mental capacities represented in the two groups are not the same. We are not trying, in the tabulations which follow, to compare the efficiency of the two schools. We are merely trying to demonstrate that a comparatively brief and concentrated business training need not be thought of as unsuccessful training; and that, after all, the most essential factors in success may be maturity, mental development, and general education. The two sets of wages do not show great differences. The tendency of the private school to show a higher rate in the first two years of employment is

offset by the High School of Commerce figures in the two to three year period.

TABLE 33.—WAGE COMPARISON FOR STUDENTS WITH SHORT AND LONG COMMERCIAL TRAINING

	Commercial High School preparation	Academic high school preparation followed by seven months' business training
Working less than one year		
Minimum.....	\$6.00	\$6.00
Maximum.....	13.00	15.25
Average.....	9.50	10.10
Working one year to two years		
Minimum.....	6.00	9.00
Maximum.....	13.00	14.75
Average.....	8.92	10.71
Working two to three years		
Minimum.....	7.00	8.33
Maximum.....	24.00	16.20
Average.....	11.90	10.95

The concrete demands of business in stenographic work are perhaps adequately covered in the following list. It will be observed that the first eight points are, strictly speaking, neither shorthand nor typing, but English.

Knowledge of English grammar and composition; special emphasis on letter form and composition

Good vocabulary

Knowledge of division of words

Hyphenating

Capitalization

Punctuation

Spelling

Facility in copying rough draft

Dictation drill in letters, reports, and legal docu-

ments; taking dictation directly on the typewriter; taking dictation from dictating machine

Shorthand drill in taking speeches and proceedings of meetings

Sense of form and classification (spacing and arrangement in typing. Tabulating)

Experience in typing financial statements

Typing on printed forms

Billing on the typewriter

Understanding of the mechanism of the typewriter

Since the stenographer is apt to be called upon for a miscellany of services about the office, the general training in office routine referred to in the previous chapter has special application here.

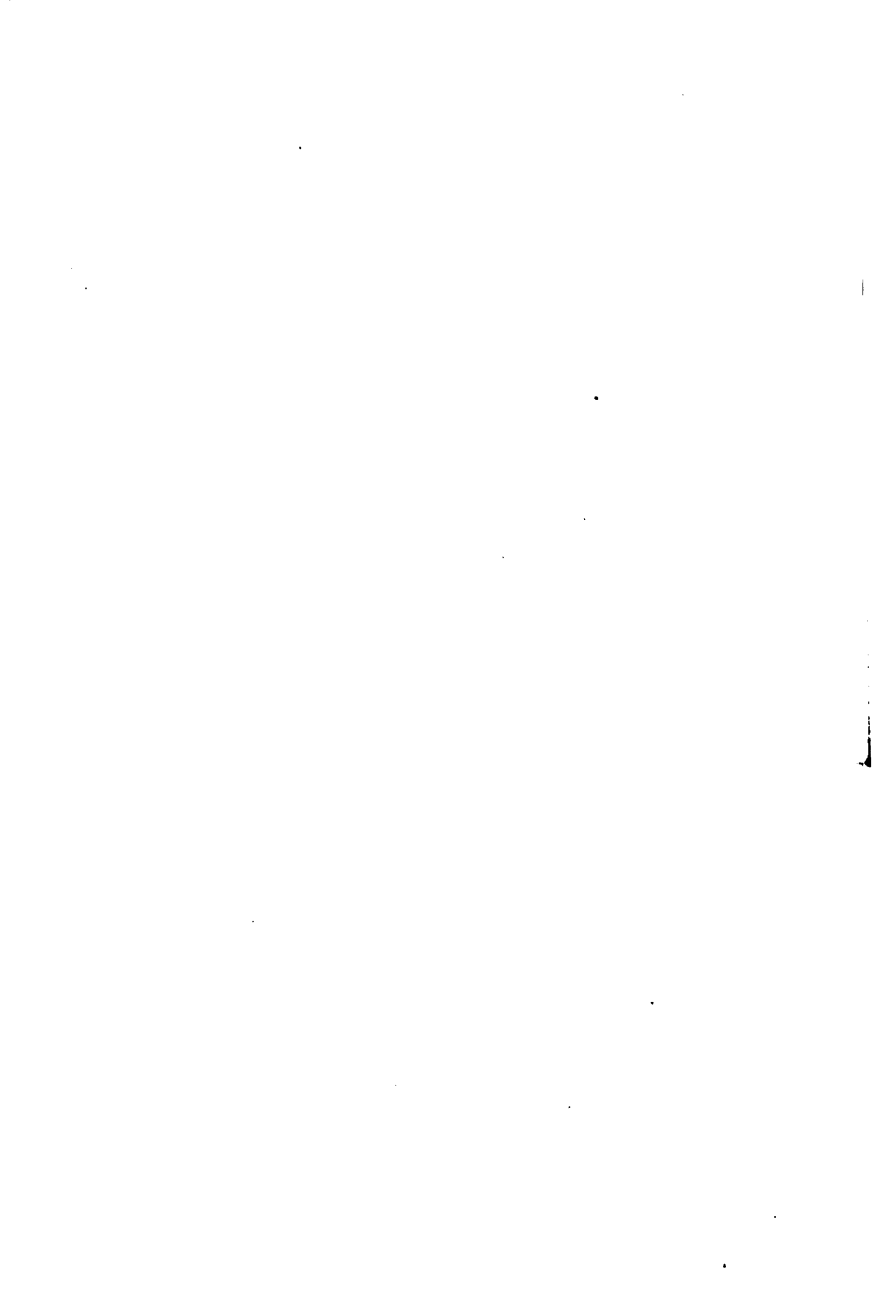
### STENOGRAPHY

Every student of stenography is required by the manufacturers to purchase the machine at a cost of \$100 and the school should carefully consider this in encouraging or permitting its students to take up the work. The period of learning shorthand and stenography is about equal. It is claimed that stenography is capable of producing greater speed than stenography. However this may be, a proficient shorthand writer is able to take dictation as fast as business men, as a rule, can give it.

Stenography has a distinct advantage over shorthand in that the notes are taken in typed characters rather than in penciled "pot-hooks" whose correct transcribing depends upon minute attention to line and position. Stenotype notes can be read as



A stenotypist.—The stenotype is valuable because the typed notes can be readily transcribed by any person who understands stenotypy even if he did not take the dictation



easily months after dictation as they can be on the day of dictation, and they can be read with equal facility by any person who understands stenotypy. On the other hand some shorthand writers experience difficulty with transcribing their notes if they are allowed to "get cold," and it is not considered easy for one shorthand writer to transcribe the notes of another. But in ordinary business, transcribing follows quickly upon dictation, and the person who takes the notes is the person who does the transcribing.

The peculiar advantages of stenotypy find use in a few types of offices; but because such demand is special and not general we would recommend that if stenotypy is taught, it should be made a night continuation school subject so that the pupils who take it will be those who have found definite use for it.

### BOOKKEEPING

The discussion of bookkeeping which this chapter includes in earlier pages makes comment at this point unnecessary except, perhaps, that it should be noted that girls, in most of the positions they hold, have even less chance to make direct application of bookkeeping teaching than boys have. Therefore, unless girls are appealed to by bookkeeping and have obvious capacity for doing bookkeeping work in the wage-earning field, there is no justification from a vocational standpoint for compelling them to make an intensive study of it.

## MACHINE WORK

Of the machine operators who do work which requires preliminary training, the typists show the greatest number; the billers rank second. The others cover a variety of workers among which the most numerous are comptometer operators; but the number of these as compared with that of typists and billers is small. The qualifications demanded in typing have been spoken of under the general topic of stenography. Since the opportunity for girls who combine shorthand with typing is so much better than that for those who offer typing alone, it could not be thought advisable, in planning a well-rounded commercial training, to give separate consideration to typing. Comptometer work opens a special and well-compensated field; but in order to keep pace with the demand, only a small proportion of girls should be allowed to elect it. The rest of the machine work represents too slight an opportunity for advancement or too slight a demand for workers to be given a place in the regular course; but there is no reason why these machines should not be taught as subjects of the night continuation classes.

## STANDARDS OF DRESS AND MANNER

The discussion of such points as these is undeniably pertinent, when one faces the truth that untidiness or unsuitability in dress, and awkward or offensive manners will certainly stand in the way of a girl's success in commercial work. A demand for remedy

is, of course, asking the school to do for some students what home training will do for others.

Is it reasonable to look to the applied arts' course to do some of these things? The High School of Commerce catalog says of this subject "the aim is not so much to give proficiency in the crafts as to give discriminating taste and judgment." But the description goes on to show that the application of these qualities is given a commercial direction; they are related to such matters as window decoration and the planning of advertising placards. Is it possible that they could have a personal direction, too? An illustration of a course in applied arts which does aim to influence students' standards of taste in personal matters is that which was organized by Mrs. Lucinda W. Prince of Boston in her school for salesmanship for girls.

A physical training course gives an opportunity to teach personal hygiene, which the High School of Commerce already recognizes.

#### BUSINESS ATTITUDE

That there is something lacking in the attitude of girls as a class toward their business positions, and that this lack is crystallized in the public consciousness, is probably true. Otherwise, how could Potash and Perlmutter look for, and get, a general response when they make observations like these:

"Some lady bookkeepers comes to the store so late and goes home so early that they hardly

allow themselves enough time downtown to go out and eat lunch at all."

"If most lady bookkeepers would spend half so much time over their books as they do over their hair we would get a trial balance once in a while without calling in one of them satisfied public accountants."

The same point of view, expressed by Cleveland employers, has already been shown. Wasting time, not feeling responsibility and not "using their heads" are the most common indictments against girls in this connection. This report admits frankly that it does not know any straight, sure road to the goal. It does not believe the end can be gained through the use of ethical talks and maxims and biographical studies; it does believe, however, that efficiency and responsibility are in direct ratio. If a girl is expert enough in her special work to have pride in it and if the school has taught her standards of doing work with completeness and really "carrying a job through" to the last detail, she probably will not belong in the class of the irresponsible ones.

## CHAPTER XVI

### HOW TO TRAIN THE BOYS

"Employers don't make a note of it whether you went to a business college or not"—one boy's comment—is a good epitome of the situation relative to the training of boys. Of the thousands of boys and men in business and clerical positions only a negligible group have entered by the way of any sort of commercial course or school. Thus the first question to be settled is, Is commercial training for boys a thing to be desired?

It is true that employers do not, in most positions for boys, make a general rule of seeking out the boy who has had commercial training. They care more about what kind of a boy he is than about how much or what he knows. Sometimes they say they prefer to take boys without either high school or commercial preparation. They say that boys who have it "know too much," meaning they are not willing to begin at the bottom, which is necessary in any business. It is this, and not maturity or overtraining, which employers really object to. More concede the value of high school education than that of commercial training. But those who

do not support commercial training think of it as it is and has always been, and they are not as a rule imaginative about its possibilities.

"Brass tacks," employers answer if you ask them what boys, going into business, should know. If you press further, in an attempt to analyze what the elements are that compose brass tacks, you learn that boys are wanted who can write, spell, and figure and who have such qualities as industry, application, accuracy, etc. These, you have to agree, are matters of general education; and you get an enlightening response only when you have asked, But do you find that the average boy with general education meets the requirements of business? Are you satisfied with the product the academic schools prepare? They answer negatively or with a reservation; and they make against academically trained boys definite criticisms like these:

"They have no idea how to conduct themselves in an office."

"They don't understand the necessity for courtesy."

"They don't care enough about their personal appearances."

"They don't know how to put two ideas together."

"They don't understand their work enough to see the opportunity in it."

"They don't understand the importance of doing things exactly right."

"They have no idea of being neat in their work; they don't know enough to keep their desks in order."

"They can't be trusted with ordinary figuring."

"They can't spell."

"They can't write a neat, legible hand."

"They don't know how to spend their money."

Business asks not much more than we have always asked of general education—nor more than every individual, wage-earning or not, needs to have. It is not that business has any right to make a special plea, but it serves as a testing station for the success, or non-success, of the methods of general education. It brings out the failures. If general education in academic schools cannot be relied upon to prepare the average commercial worker with the thing he most needs, is it not possible that a practical way of teaching him rudimentary subjects and of inculcating in him rudimentary qualities should be the whole program of commercial training, in so far as it relates to boys? If academic methods cannot do these things, is it not possible that commercial methods can? This, we would say, is the chief justification for commercial training for boys.

The two most important things to note in planning the regular day course of training for the mass of boys are that it should be general, not aiming to fit for specific positions; and that it should be simplified as much as it can be. Business needs neither a quantity nor a variety of acquirements, but thoroughness in ordinary things.

Maturity at the beginning of wage-earning is not in the case of boys an asset, as it is with girls; for much of boys' training must, under any circum-

stances, be supplemented by business itself. Therefore, if the school can shape its training so as to give adequate preparation in less than four years to those who cannot afford to remain to the end, it will be performing a justifiable service. The arrangement of a course of study for boys purely from the standpoint of commercial training will recognize these needs:

A maximum of general education and of studies which make for the development of mental qualities and business standards.

A modicum of background and cultural education.

A minimum of specific training.

We have already in Chapter XIV discussed the requirements of business in common branches of general education. What we have said about the kind of arithmetic and the qualities in penmanship needed for practical use in business finds application in nearly all the work boys do. Of at least equal importance is the development of mental qualities and of business standards in work. They cannot be overlooked, because a boy's value in the commercial field depends upon them, and no amount of education or training in "subjects" can take their place. The most essential are contained in the following list:

Ability to associate ideas and to group facts.

Habit of seeing part in relation to the whole.

Ability to note resemblances.

Ability to make deductions.

Sense of system; classification and subordination.

Judgment.

Conscious habits of attention, observation, memory.

Ability to assimilate ideas and facts.

Accuracy.

The means by which these qualities can best be developed remains undoubtedly a joint problem for the psychologist and the pedagogue; but in this report it may be permitted to refer briefly to some of them from the standpoint of commercial work. The first four are ordinary forms of reasoning; the fifth, sense of system, combines classification, which is ability to note resemblances, with subordination, which is seeing part in relation to the whole. Judgment is a combination of knowledge and reason. The question, here, is whether the reasoning faculties of commercial students can be developed better through abstract sciences, as in the academic schools, or through subjects in the commercial course which are related to business. Attention and observation make for memory, but all these are dependent upon interest and understanding; so also is the assimilation of ideas and facts. Accuracy, put last on our list but first in business, is largely a habit, and to some extent is to be evolved through drill; but certainly attention, observation, interest, and memory are basic factors in it.

There is little doubt that bookkeeping, properly taught, furnishes the practise field for all the reason-

ing qualities, and an abundant chance for drill in the habit of accuracy. The great difficulty will be to get boys to apply the qualities they achieve in bookkeeping to the affairs of every-day life. Formal debates are recognized as giving opportunity for systematic organization of material, logical presentation and, especially, the experience of deductive and inductive reason; and debates on current topics of live interest may help to insure practical application of the qualities they develop. The purpose and technique of system are illustrated in the principles of filing. A school understanding of the use of different kinds of files—numerical increasing and decreasing, chronological and alphabetical—and a little actual experience in filing might impart a sense of system broad enough to aid in general ways and extending so far, in a practical direction, as to show a boy how to keep his desk in order; and it would give good opportunity for developing accuracy.

Among the employers interviewed for this report, it is not a popular idea that the commercial school course should devote much of its time to subjects designed to give business background. These are the things, they say, that a boy can afford to wait for until he gets into business; and they claim, too, that different businesses and even different employers are so individual in their methods that any common ground in business organization and business systems is hard to find. They believe the study of the general principles of bookkeeping includes about as much information relative to business procedure in

all business as can be obtained from any single subject. But our interviews with boys at work revealed, in some cases, how little they understood the relation of the position they held to the business; and how helpless they were in the matter of recognizing opportunity or the reverse. Therefore it is possible that the kind of information set forth in Chapter II in regard to clerical work and business might be useful for them to have. The course in local industries and institutions as described in the catalog of the High School of Commerce finds general approbation. There is a balance of sentiment for curtailing the study of commercial law and for confining the study of banking to a knowledge of general principles and the keeping of a personal account. Of the business forms which it is thought should be explained to students, employers generally have been willing to admit checks, drafts, notes, bills, invoices, receipts, orders, and monthly statements.

The one subject which can be regarded for the majority of boys as training to be directly applied in work is bookkeeping. Some element of it appears in most of the things boys do. But they need not expect to keep books or to use concrete knowledge of a bookkeeping system. At the most, they will find application for the general principles underlying bookkeeping or for some of its methods; but Chapter XIV has already dealt with this.

We have shown, statistically, that stenography and typing claim a comparatively small number of boys and men. Our general knowledge of the situa-

tion indicates that if the shorthand writers were separated in census figures from those who are typists only, the shorthand group would be a negligible one; also that boys are, to a very small extent, stenographers and typists primarily; it is rather the case that they do shorthand and typing, or typing alone in connection with their more important work as clerks. We believe that the use of shorthand is so occasional and incidental, for boys, that the school is not justified in allowing it to be a prominent feature of the regular day course. For those boys who do get into positions in which knowledge of shorthand is desirable, the need can be taken care of in night continuation classes.

There is more demand for typing than for shorthand, and it may be permissible to make typing for boys an elective subject of the day course. But the truth remains that typing will not have a significant effect upon the commercial beginning or advancement of the mass of boys.

We have recommended earlier in this chapter that general education and a simplified course of study be made the guiding principles of a plan for regular day-school work. The chief reasons for not advocating special training are that business, on the whole, does not demand it, and that in those cases in which boys do have use for it, the particular need could not have been foreseen when they were in school. But a need of this sort, discovered after entrance into wage earning, as well as special needs in advanced training based upon experience in work,

are important considerations in the training of the boy; and they call upon the school to work out an adequate system of night continuation classes in commercial subjects. The list suggested in Chapter XIV represents boys' needs to a greater extent than girls'.

## CHAPTER XVII

### A SUMMARY OF TRAINING OBSERVATIONS

Commercial training should be open to all students whom commercial subjects and methods can serve best; but graduation should depend upon a high standard of efficiency.

Statistics show that commercial training is not to be looked upon, in a wholesale way, as a successful means of taking care of backward academic students.

Commercial students' need for cultural and other supplementary education may be even greater than that of academic students.

The graduation rate of commercial students in public schools has been increased since the organization of a separate commercial high school and the number of students entering has been decreased.

Commercial high schools receive a grade of children who are about medium in scholarship and normal in age.

Commercial and academic high school teachers are similar in scholastic preparation and in the salaries they are paid.

The Cleveland Normal School does not prepare definitely for the teaching of commercial subjects.

Commercial teachers are nominally supervised by the district superintendents.

Public schools receive 29 per cent of the city's day commercial students. The private schools receive a few more than the sum of public, parochial, and philanthropic schools.

Public schools receive 22 per cent of the city's night commercial students. The private schools receive more than twice as many as the public and philanthropic schools. There are no night commercial classes in parochial schools.

The length of the day course in most private schools is eight months or less; in public schools it is four years.

The public school, if it believes in longer preparation for commercial work than most private schools give, should demonstrate the reason to parents and children.

Training for boys and girls should be different in content and in emphasis.

The usual course of study in commercial schools is suitable for girls and unsuitable for boys.

A girl needs, chiefly, specific training in some one line of work. She has a choice among stenography, bookkeeping and machine operating.

A boy needs, chiefly, general education, putting emphasis on writing, figuring, and spelling; general information; and the development of certain qualities and standards.

For students electing to go into commercial work, general education may be taught more effectively

through the medium of commercial subjects than through academic ones.

Boys' training looks forward to both clerical work and business administration; but as clerical work is a preparation for business and is likely to occupy the first few years of wage-earning, training should aim especially to meet the needs of clerical positions.

Clerical positions for boys cover a variety of work which cannot be definitely anticipated and cannot therefore be specifically trained for. But certain fundamental needs are common to all.

Most of the specialized training for boys should be given in night continuation classes.

Girl stenographers need a full high school course for its educational value and for maturity. Girls going into other clerical positions can qualify with a year or two less of education; but immaturity in any case puts them at a disadvantage.

Boys' training, for those who cannot remain in school, should be compressed into fewer than four years. Immaturity in the case of boys is not a great disadvantage.

Bookkeeping has general value in the information it gives about business methods and for its drill in accuracy. To some extent it may aid in the development of reasoning.

Much of the bookkeeping in actual use in business consists in making entries of one kind only and in checking and verifying. Understanding of debit and credit, posting, and trial balance, is the maximum practical need of the younger workers.

Penmanship demands compactness, legibility, neatness, and ease in writing; also, the correct writing and placing of figures.

The chief demand of business in arithmetic is for fundamental operations—adding and multiplying; also for ability to make calculations and to verify results mentally.

Undergraduate experience in school or business offices may be a valuable method of acquainting students with office practice and routine and with business organization and business standards.

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These reports can be secured from the Survey Committee of the Cleveland Foundation, Cleveland, Ohio. They will be sent postpaid for 25 cents per volume with the exception of "Measuring the Work of the Public Schools" by Judd, "The Cleveland School Survey" by Ayres, and "Wage Earning and Education" by Lutz. These three volumes will be sent for 50 cents each. All of these reports may be secured at the same rates from the Division of Education of the Russell Sage Foundation, New York City.

Child Accounting in the Public Schools—Ayres.

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What the Schools Teach and Might Teach—Bobbitt.

The Cleveland School Survey (Summary)—Ayres.

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Boys and Girls in Commercial Work—Stevens.

Department Store Occupations—O'Leary.

Dressmaking and Millinery—Bryner.

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